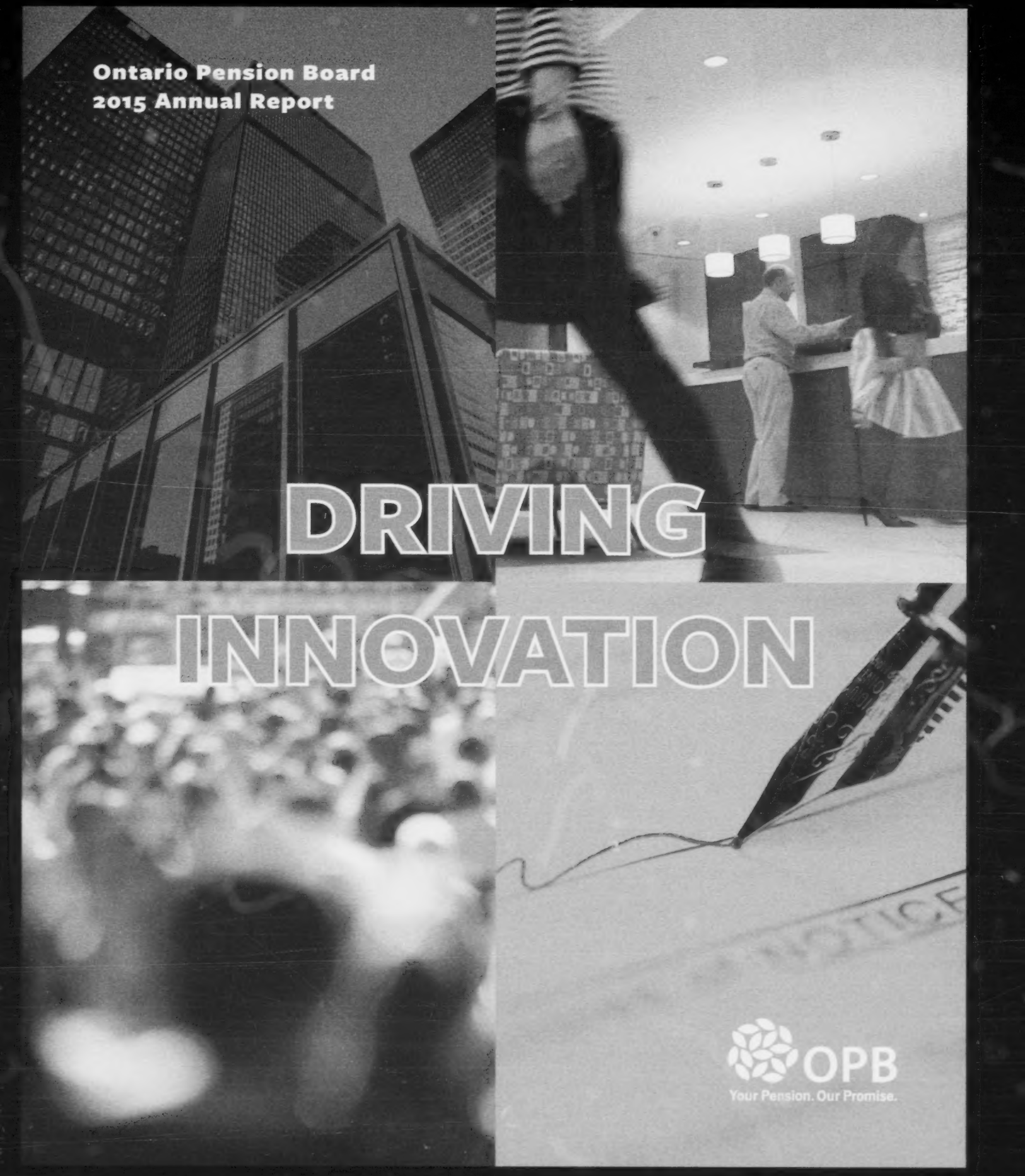
Ontario Pension Board
2015 Annual Report
DRIVING
INNOVATION
OPB
Your Pension. Our Promise.

At OPB, we understand that innovation is a subtle but powerful essence that drives our ability to make a meaningful difference for our clients and stakeholders. We continually push ourselves to move forward, identifying new opportunities to grow and to protect the pension promise.

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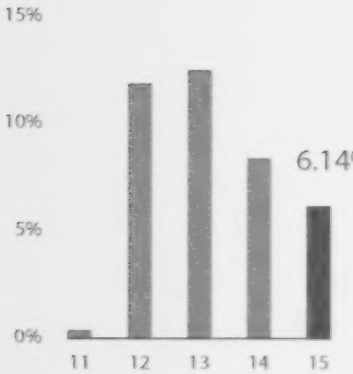
# About OPB




**8.5%**

**Since our inception in 1990, OPB's long-term rate of return is 8.5%, demonstrating our ability to deliver investment returns needed to pay the pension promise.**

**41,105**

**With over 42,000 active members, the PSPP is made up of select employees from ministries, agencies, boards and commissions of the Government of Ontario.**

## $23 billion

**OPB's assets under management have grown to $23 billion. We are the 10th largest public pension fund in Canada.**

**39,736**

**Over the last five years, OPB has paid inflation-indexed pensions to 39,736 retired members.**

**With an investment return of 6.14% in 2015, OPB's funded status remains at 98% – positioning the Plan well for long-term sustainability.**

## Who we are

Ontario Pension Board (OPB) is the administrator of the Public Service Pension Plan (PSPP or the Plan) – a major defined benefit pension plan sponsored by the Government of Ontario. Our membership base is comprised of certain employees of the provincial government and its agencies, boards and commissions. Our commitment is to protect the long-term sustainability of the Plan, invest assets astutely and with discipline, keep contribution levels stable and affordable, and deliver exceptional service to our stakeholders.

With $23 billion in assets, 42,105 members, 36,220 retired members and 6,037 former members, the PSPP is one of Canada's largest pension plans. It is also one of the country's oldest pension plans, successfully delivering the pension promise since the early 1920s.

## Who we serve

OPB serves:

- PSPP members, retired members and employers ("clients"); and
- other key stakeholders (the Plan Sponsor, bargaining agents and the citizens of Ontario).

## About your plan

The PSPP is a defined benefit pension plan designed to enhance the financial security of its members. Retired members receive a pension benefit based on a pre-set (defined) formula. That formula takes into account each member's earnings history and years of service with the Plan. To fund the pension promise, both members and employers make contributions to the Plan.

## Our promise

To use innovative solutions and strategies to:

- protect the long-term sustainability of the Plan;
- invest the Plan's assets to maximize returns within acceptable risk parameters;
- keep contribution levels reasonably stable and affordable; and
- deliver superior, cost-effective service to clients and stakeholders so that they can realize the full value of their participation in the Plan.

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# Investment and Funding Highlights

Our Investments team successfully navigated challenging markets to deliver a 6.14% return. This helped us to maintain our strong funded status of 98% as of December 31, 2015, despite the volatility of public markets globally.

## By the numbers

**98%**
**funded status**

**30%**
**co-ownership of Toronto's iconic TD Centre**

**$23 billion**
**net assets under management**

We are committed to investment excellence and pursuing quality opportunities that generate stable long-term returns while preserving capital. Succeeding in today's investment environment requires agile responses to fast-changing markets – and that is precisely what we did in 2015.

## What we did

**Lowered costs** and **improved** control and **transparency** with enhanced in-house asset management

Expanded best-in-class partnerships with **high-profile acquisitions**

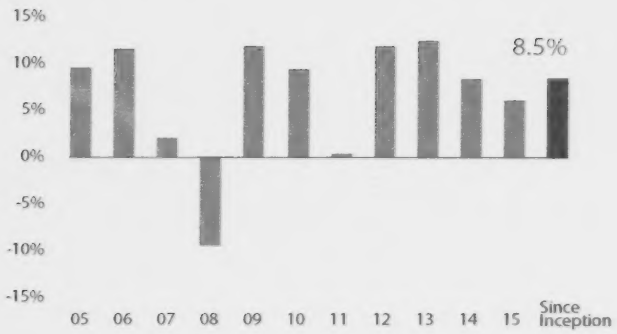
Raised **$500 million** with two bond financings

Transitioned to **active foreign currency** management

Forecasted risk with **custom in-house modeling**

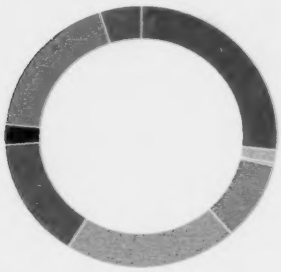
**Surpassed** each of our Strategic Asset Allocation phase-in **targets**

## Total returns




## Asset mix

As at December 31, 2015

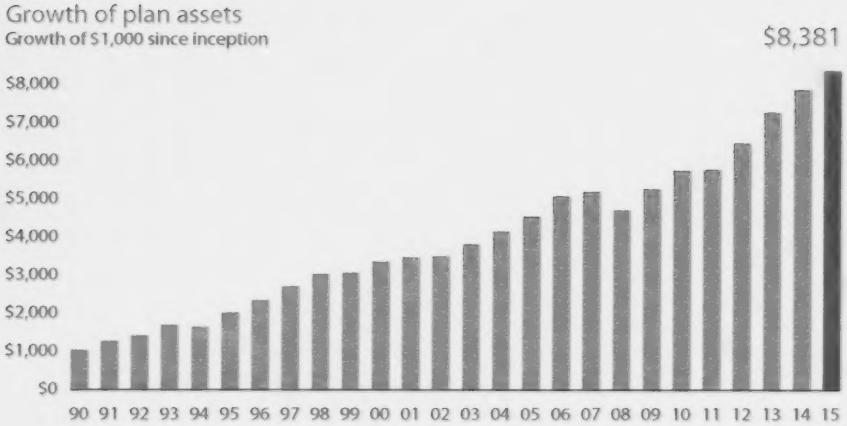


- **26.7 %** Fixed Income[1]
- **1.8 %** Long Bonds
- **0.3 %** Real Return Bonds
- **9.8 %** Canadian Equities
- **20.5 %** Foreign Developed Equities
- **15.0 %** Emerging Equities
- **2.4 %** Private Equities
- **18.5 %** Real Estate
- **5.0 %** Infrastructure

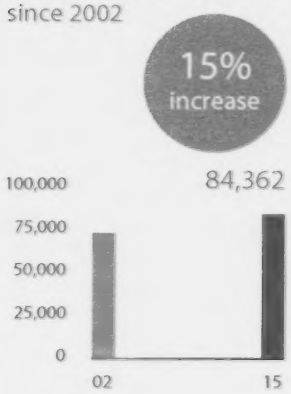
[1] The Fixed Income amount contains the negative value of -0.3% Cash and Equivalents

## Growth of plan assets

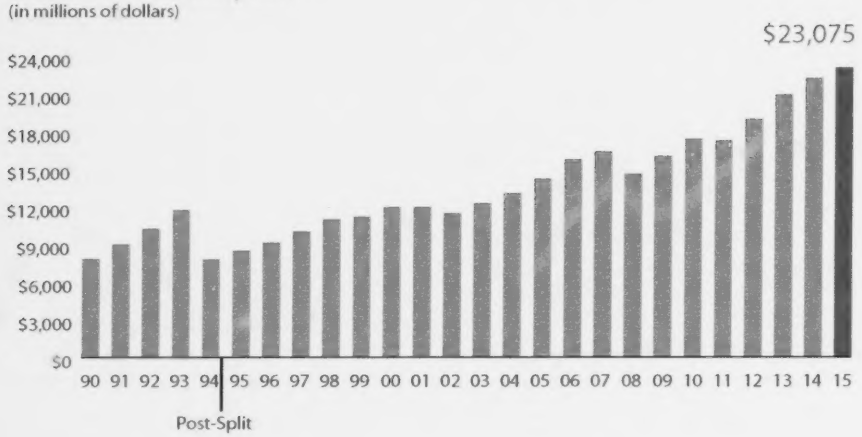
Growth of $1,000 since inception



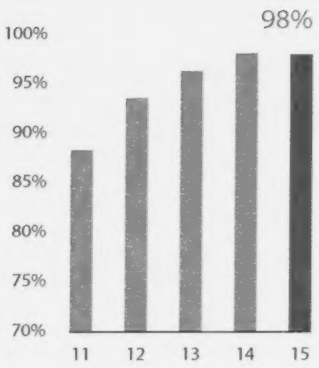

## Growth in total members since 2002



Net assets since inception
(in millions of dollars)




Funded status



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# Client Service highlights

At OPB, we are committed to superior client service. Full stop. In fact, the global benchmarking organization CEM recently put us in the top two of 13 Canadian pension plan administrators – and in the top five out of 77 worldwide.

## By the numbers

**8.6/10**

**our best Member Satisfaction Score yet**

**72%**

**e-services users who take advantage of our online Pension Estimator**

**8.4/10**

**our 2015 Member Communication Score**

Everything we do is about protecting the pension promise. With our members' financial security in mind, we've invested in innovative, value-added tools designed to help them make informed, sound decisions about their pension. In 2015, our peers recognized us for providing a superior member experience at a cost-effective price.

## What we did

Helped nearly **2,500** **members** navigate critical pension decisions

Provided five **in-house workshops** to help members prepare for retirement

Reached **200%** **more members** than in 2014 through outreach and education sessions

## What we did

Hired a **digital content strategist** to help improve members' online experience

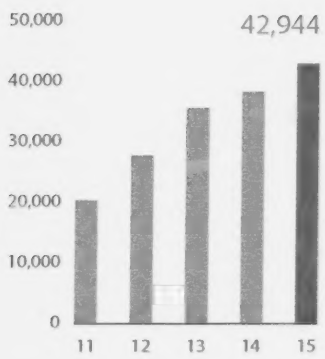
Announced **Advisory Services – personalized 1-on-1 support from our team of Certified Financial Planners –** to help clients understand how their pension fits into their broader financial and life circumstances

Established key **performance metrics** to monitor trends and client needs

Introduced a secure, dedicated **online portal** for employers

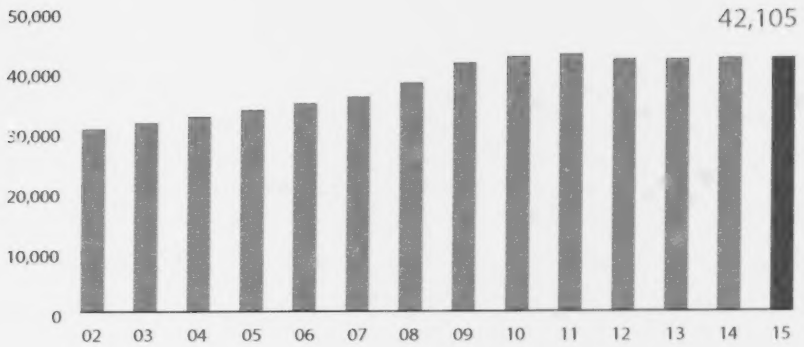
Dedicated resources to **enhance information security** and protect **member privacy**

E-services logins




Client Profile

Number of active members




**Log in to e-services**

## Client interactions

13,258 members using the online **retirement planning tool**

Delivered 158 **member presentations**

Processed 2,624 **beneficiary changes** for members

Nearly 1,200 **address changes** submitted online

Completed 2,868 **buyback quote** requests

33,137 members and retired members **registered** to use e-services

# Chair's Message

In last year's Chair's message, I reflected on all that OPB accomplished in its first 25 years as Plan administrator of the PSPP. 2015 was another significant year for OPB as we moved forward with a number of innovative initiatives that reinforced our reputation as one of the world's top pension plan administrators.

**M. Vincenza Sera**
**Chair**

## Leading Innovation

The two initiatives that will have the greatest impact on OPB's future are Asset Pooling and Advisory Services.

### Asset pooling

Since the spring of 2012, when the Government of Ontario announced its interest in pooling the assets of broader public sector pension plans, we have worked very closely with the Government of Ontario and the Workplace Safety and Insurance Board (WSIB), the latter being our partner in this strategy, to lay the groundwork for success. At this time, we expect that asset pooling – through the Investment Management Corporation of Ontario (IMCO) – will be implemented in 2017. We have remained steadfast in our primary goal with IMCO: to enhance investment returns. By combining the assets of OPB and WSIB, IMCO will have a larger investment pool to ensure it can attract and retain the best investment talent and participate in a broader range of investment opportunities. The Board and I have been very focused on meeting our fiduciary obligation to ensure the move to asset pooling is the right strategy for OPB. We believe that, properly implemented, this strategy will benefit the financial status of the Plan and is in the best interests of Plan beneficiaries and stakeholders. We will continue to be actively involved as IMCO evolves.

### Advisory services

Ensuring secure pensions for our members also means making sure that our members have the information they need to make sound decisions about their pensions. In 2015, we took member service to the next level, formally announcing our Advisory Services program to members. In the first year, our Advisors helped almost 2,500 members navigate key pension decisions within the context of their broader financial circumstances.

## Protecting the Pension Promise

As a pension plan, we operate over a long-time horizon – protecting the long-term sustainability of the Plan is our top priority. We do this by ensuring our clients and stakeholders understand the value of the Plan they have and by prudently investing the assets of the PSPP. Our long-term rate of return since OPB's inception in 1990 is 8.5%, which has helped us achieve a 98% funded status. We have continued to successfully protect the pension promise for our current and future members. Through responsible and prudent management, we have maintained a strong funded status, kept contribution rates for members and employers affordable, and protected benefits. Our contribution rates remain among the lowest of the public sector plans.

To ensure the continued long-term sustainability of the Plan, OPB regularly conducts a series of studies that review the appropriateness of the assumptions we use to value the Plan, including the discount rate and a long-term funding study to ensure that contribution rates and benefits are appropriate. This study is the basis for recommendations to the Plan Sponsor around changes to contribution rates and Plan design. Given the continued market volatility, global economic conditions we are seeing in 2016 and the emergence of negative interest rates in some countries, we think the timing is right for OPB to review the discount rate and other assumptions used to value the PSPP.

## Other Highlights

**Enterprise Risk Management (ERM)**: During the year, we further strengthened our risk management processes by revamping our ERM program to give the Board of Directors and management team timely and more accurate data as well as more actionable mitigation strategies.

**Supporting Environmental, Social and Governance (ESG)**: OPB is committed to ESG in a way that supports its overriding fiduciary responsibility to act in the best interests of the Plan. There is strong evidence that improved ESG engagement can have a positive impact on investment portfolio performance. I am pleased to say that in 2015, we signed the United Nations-supported Principles of Responsible Investing and developed our own proxy voting strategy, which incorporates ESG factors into our voting of publicly traded securities.

## Leading with Good Governance

Three Board members – David Brown, Peggy Gilmour and Shamira Madhany – completed their terms in 2015 after providing thoughtful advice and exemplary service over many years. I would also like to welcome our newest members to the Board, Kevin Costante and Lisa Hillstrom, who were both appointed in 2015, as well as Michelle Savoy, who was appointed in January 2016. These individuals bring a wealth of knowledge and experience to the Board, which will help us navigate the challenges ahead.

On a personal note, my appointment as Board Chair will end in June of this year. A new Chair will be appointed in a timely fashion and in accordance with OPB's strong governance structure around Board appointments. It has been my honour to serve the stakeholders for over 12 years and it has been my great pleasure to work with OPB's dedicated management team, led by Mark Fuller, and all of the talented employees who have helped us accomplish so much. I'd also like to thank my fellow Board members for their careful and considered direction.

OPB's commitment to excellence and innovation, coupled with its proven ability to respond swiftly and effectively to changes, positions us well to ensure the health of the Plan for this generation and generations to come.

**M. Vincenza Sera**
Chair

# President's Message

I am very proud of all that OPB has accomplished in its 25 years as the Plan's administrator. Our careful and responsible management of the Plan, coupled with our innovative strategies to protect our members' retirement security, have positioned OPB as a leader in the global pension landscape.

**Mark J. Fuller**
**President & Ceo**

During a period in which defined benefit plans have found themselves increasingly under the microscope, OPB's responsibility, restraint and transparency have established us as a trusted, responsible and respected government agency. Our performance has enabled contribution rates to remain affordable and has protected benefits. We have successfully navigated the ups and downs of the markets to maintain a very strong 98% funded status, and we have done so with one of the lowest expense ratios in the industry.

I'm pleased to report that despite a challenging year in the global financial markets, we ended 2015 with a return of 6.14%, which had a value-add of 0.77% (77 basis points) over our benchmark of 5.37%. At the end of 2015, the PSPP was 98% funded – a very solid position for us to be in.

## Long-Term Funding

We are committed to protecting the long-term sustainability and affordability of the Plan. As part of our prudent management of the Plan, we regularly conduct long-term funding studies to determine whether the current contribution rates are set to adequately fund the Plan going forward. While our 2014 study didn't show a need for any immediate adjustments, we know that people are living longer, which drives pension costs higher, and the investment outlook ahead is more challenging.

Another factor that can impact our contribution rates is the discount rate the Plan uses in its valuations. The discount rate reflects what the Plan's assets can reasonably be expected to earn over the long term, less expenses and provisions for unanticipated events.

Setting the discount rate is a rigorous process designed to ensure that the assumption is reasonable and at an appropriate level for the Plan. Changes to the discount rate impact the Plan's projected liabilities and, by extension, the Plan's funded position.

We regularly review the discount rate to confirm that it is set at an appropriate level, meaning that it is at a level that OPB believes we can achieve in terms of long-term average annual investment return.

We've now been in a low-interest-rate environment for quite some time, and there are no signs that this trend is going to reverse in the near future. In fact, we're starting to see the emergence of negative interest rates in several countries. Given this environment, we believe that our expectations for future returns, as reflected in our discount rate, may need to be moderated. Accordingly, during 2016, we will be conducting a

review of our current economic and demographic assumptions. This will include a review of our expected rate of return on assets (the discount rate), the inflation assumption, the rate of salary increase assumption and the life-span assumption. This review could lead to recommendations to change the assumptions we currently use, including lowering the discount rate used to value the PSPP from its current level of 5.95%. Overall, such changes would likely result in a modest decline in the funded status of the Plan. However, we believe that ensuring the assumptions we use are realistic, and that we make required changes in a timely fashion, will be key to properly managing the financial health of the Plan.

In 2016, we will be conducting a long-term funding study to assess the adequacy of our contribution rates. Should the study show a need to adjust contribution rates, we would make a recommendation to the Plan Sponsor to adjust them.

## Managing Expenses

We are committed to providing world-class client service while also being cost-efficient. Our total expense-to-average-assets ratio is one of the lowest among our peers. Our track record of operational excellence and effective cost management has positioned OPB as a highly respected government agency.

While we will continue to be prudent in managing our expenses diligently, there are a number of crucial initiatives we have put off in recent years that we must begin to address in 2016. As part of our cost-constraint measures, OPB has restrained spending on information technology (IT) infrastructure and core applications since 2008. While we have been maintaining our systems, we now need to focus on a generational shift in technology to meet the evolving needs of our clients and stakeholders, as well as to ensure our technology remains current and secure.

We are preparing to replace our aging pension administration system in the coming years. The new system will further improve data security and processing efficiency for member services. The next-generation system will also help to support our progressive digital strategy, including planned client and stakeholder outreach initiatives as well as customer self-service via e-services.

In 2016, we will position ourselves to start the multi-year IT modernization project in 2017.

## Preparing for Asset Pooling

In 2015, the Government of Ontario passed the *Investment Management Corporation of Ontario Act*, creating IMCO and further laying the policy foundation for the new investment entity that will invest OPB's and the Workplace Safety and Insurance Board's (WSIB) assets. We expect that asset pooling will be implemented in 2017.

As this year's landmark TD Centre co-ownership acquisition demonstrated, we see significant investment value in partnering with large, world-class organizations that have a similar investment philosophy as us. Asset pooling will give us greater capability to invest in large acquisitions as well as providing us with the enhanced ability to back up investment decisions with even stronger research and risk management capabilities.

Asset pooling will give OPB more opportunity to invest directly in high-quality opportunities, helping us realize higher net investment returns at a lower cost, which we believe will support the long-term sustainability of the Plan. We believe asset pooling will boost investment returns, and even a small increase could have a significant impact. For example, if OPB were able to increase its annual investment returns by 25 basis points (1/4 of 1%) above the Plan's 5.95% discount rate, this would add approximately $2.0 billion to the funded status of the Plan at the end of 15 years. While IMCO will be responsible for managing our assets, OPB will continue to maintain control over the strategic asset mix of the Plan, staying consistent with its fiduciary duty to its members.

## Elevating our Client Service

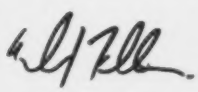
With the launch of our Advisory Services program, 2015 marked a significant leap forward in client service excellence. Our qualified Advisors can help members navigate pension decisions within the context of their broader financial circumstances. I truly believe this program fills an important need and will help members avoid potentially costly mistakes that could negatively impact their retirement security. I am thrilled with how well the program has been received by our members.

I am very pleased to say that in 2015, OPB was recognized as one of the top two out of 13 ranked pension administrators in Canada and one of the top five out of 77 ranked globally by CEM, a leading pension administration benchmarking firm.

## Looking Forward

Our successes would not have been possible without a shared commitment to going beyond simply meeting our fiduciary duty to pay accrued benefits. We also ask how we can best protect the pension promise for our members and how we can innovate for our members' retirement security.

I want to thank the Board, the leadership team and all employees for their dedication, commitment and hard work. As we chart our path for the next 25 years, I am confident that our responsible approach to pension administration and investment management, paired with our commitment to driving innovation, will allow us to continue to protect the long-term sustainability of the Plan.



**Mark J. Fuller**
President & CEO

# Q&A with the Chief Pension Officer

People often think about investments when they think about a pension plan, but excellent pension administration is equally critical to the Plan's success. This year, OPB's Chief Pension Officer, Peter Shena, talks about how we're managing the pension side and about some of the exciting ways we're taking our client service to the next level.

**Peter Shena**
**Chief Pension Officer**

## People may not be familiar with what a Chief Pension Officer does. Can you talk a bit about your role?

As the Chief Pension Officer, I have three key responsibilities: first, to manage the liabilities of the Plan; second, to ensure our clients receive high-quality and efficient service; and third, to provide members with access to the advice and assistance they need to make sound decisions about their pension. These responsibilities are all equally important and are critical to ensuring the long-term success of the PSPP.

Managing the liabilities of the Plan well is vital to its long-term sustainability – and to keeping contributions affordable and maintaining benefits. It requires staying on top of changes or trends that can impact what it costs to pay the pension promise, such as changes in how long people are living or the average salary in the Plan. We do this by running a long-term funding study and an experience study to test whether the contributions and benefit structure are sustainable, and whether the assumptions we've used to value the Plan's liabilities match the Plan's actual experience. We perform these studies at least every five years and we expect to conduct our next review in 2016.

When it comes to client service, everything we do is ultimately about providing our members with a secure pension and a superior experience. Last year, we formally announced our Advisory Services program to ensure we can help members navigate complex pension decisions in the context of their overall financial picture – we want to ensure they are equipped to make sound pension decisions.

## Can you talk to us about Advisory Services and why OPB launched this important initiative?

Pension issues are complex and the wrong or sub-optimal decision can have a significant impact on an individual's financial future. Our members are regularly faced with overwhelming financial choices, without the pension and general financial knowledge to make those decisions. To make the best decision for their future, members need to consider pension decisions in the context of their broader financial circumstances and goals. We introduced Advisory Services to provide our members with the support they need to make an informed decision about their pension in the context of their personal financial picture and life

circumstances. It is our role to ensure they have a better understanding of the options they have and the impacts their decisions can have on their financial security in retirement. We believe it is important to help our members avoid costly mistakes that could negatively impact their retirement security.

To help our members in this way, we need to be more than pension experts. We now have Client Service Advisors who are designated Certified Financial Planners® (CFP), or have the Canadian Institute of Financial Planning's Registered Retirement Consultant® (RRC) accreditation and are in the process of completing their CFP designation.

### How has Advisory Services been received?

We are thrilled with the engagement and feedback we have received. In our first year, our Advisors helped close to 2,500 members navigate critical pension decisions and all five of our in-house Advisory Workshops were fully registered. To us, this response validates what a strong need there is to understand and navigate pension decisions. I believe our client satisfaction scores also reflect that, with our member satisfaction scores hitting a record high this year.

Our Advisory Services offering has also piqued interest within the industry. We're being asked to speak about what we're doing and why we're doing it. We truly believe Advisory Services is filling a significant need for our members and are thrilled that they are responding so well and taking advantage of this important value-added service.

### When should members start thinking about retirement and how the PSPP may help them achieve their financial goals?

The reality is that most people don't start planning for retirement until it's on the horizon and members often don't understand that their decisions today impact their retirement reality tomorrow. That's why it's really important to start thinking about retirement planning early on. Our suite of online tools, including our Pension Estimator and online Retirement Planner, are a good place for members to start to understand how their pension fits into their overall plan and to see if they're saving enough for their retirement plans.

Once members have used these tools and reviewed the information available online, they can book a 1-on-1 with our Client Service Advisors, who can help them understand how decisions about their pension can impact their financial future. I would strongly recommend that members speak to an Advisor if they're navigating a pension issue that requires larger financial analysis, such as determining if they'll have enough income in retirement, deciding whether purchasing or transferring pension credit makes sense for them or choosing a retirement date. Advisors take the time to understand a member's personal financial situation and goals so that they can equip the member with information to make the best decision about their pension. Advisors won't make decisions for members – they will provide valuable counsel and clear explanations of the impact of their choices and support members in making good decisions about their pension.

### Why do you feel it's important for OPB to continue to invest in the member experience?

Everything we do is ultimately about providing our members with a secure pension and a superior client experience. At OPB, we pride ourselves on providing world-class client service to our members, a fact that recently was recognized by CEM, an international pension administration benchmarking company. In 2014, OPB was ranked as one of the top five out of 77 globally ranked pension administrators. Whether it's investing in new online services to give members access to information and interactive programs, advisory staff on standby who can help them navigate complex pension decisions, or digital communication channels that fit with their lives, we're constantly looking at how we can provide better and more meaningful ways for our clients to experience the pension promise.

### OPB is active within the pension and retirement income industry. Why is that important?

At OPB, we believe that everyone should have access to a pension. To that end, we believe that a sound retirement income system is critical to ensuring that Canadians have access to a pension and can retire with dignity. We feel it's important that we participate in discussions and debates to ensure that important messages about employer-sponsored pension plans are delivered. For example, we want to ensure the public as well as government and business decision-makers understand that well-designed, well-run defined benefit and defined benefit-like or shared-risk plans remain the best option for delivering efficient, affordable and sustainable retirement income. Not only do these plans provide members with a secure retirement income, but they also play an important role in stimulating our economy by providing pensioners with disposable income that is pumped back into the economy – and they provide an important ready source of reliable long-term capital for the markets.

We continue to advocate strongly for the defined benefit (DB) pension plan model and DB-type arrangements that are sustainable and could be made accessible to a broader range of working Canadians. Shared-risk plans, in particular, retain the best features of the DB model, but spread the risk of unfunded liabilities between members and plan sponsors, as all public sector pension plans already do.

We believe it's important to ensure that working Canadians have adequate income in retirement, which is why we continue to promote viable retirement systems and the importance of long-term financial planning in a wide array of public, private and government forums.

# Straight Talk With EVP & CIO Jill Pepall

In 2015, OPB's Investments team continued to generate stable investment returns in an increasingly challenging environment. The team successfully managed through turbulent economic conditions by advancing its in-house asset management and building relationships with like-minded investment partners.

**Jill Pepall**
**EVP & CIO**

In the following interview, Jill Pepall, OPB's Executive Vice-President & Chief Investment Officer (EVP & CIO), offers her outlook for the coming year. More specifically, she talks about the benefits of asset pooling and how OPB's investment strategies position the Plan to take advantage of the expected continuation of market volatility in 2016.

## In 2015, you beat your benchmark rate of return. To what do you attribute this success?

OPB's success in 2015 can be attributed primarily to our timely Tactical Asset Allocation (TAA) decisions, the strong performance of our Real Estate portfolio, and the flexibility to leverage in-house expertise to take advantage of changing market conditions across all asset classes.

## Why would an investor want to look at both absolute and relative returns when describing the success of an investment? Looking back on 2015, why is this especially relevant?

Monitoring both absolute and relative returns is important because it provides two different perspectives: assessing market conditions and evaluating the individual manager's ability. Absolute return (i.e., the actual return) is driven, in large part, by the financial markets. For example, during stock market rallies, absolute return will tend to be higher than when equity markets are declining, and vice versa. Relative return (i.e., OPB's actual return (6.14% in 2015) compared to the Strategic Asset Allocation (SAA) benchmark return of 5.37% for the same period) tells us if Management is taking advantage of the market conditions, and speaks to the value-add that is generated regardless of whether financial markets are up or down. This difference is important in a year like 2015, when markets were challenging and volatility was high. In 2015, major global equity markets were weak and interest rates remained low. Although this impacted the absolute rate of return, on a relative basis, OPB was able to take advantage of the market volatility, and we added value by exceeding the benchmark return by 77 basis points.

### In 2017, OPB intends to implement the recently announced Government of Ontario asset pooling initiative with the Workplace Safety and Insurance Board (WSIB). How can larger asset pools benefit the PSPP and its members?

The objective of the asset pooling initiative is to create and operationalize a new world-class investment manager, the Investment Management Corporation of Ontario (IMCO), that will provide fiduciary, cost-effective investment expertise to the PSPP and WSIB initially, as well as to other broader public sector (BPS) pension plans and entities in Ontario that wish to participate. The larger scale that will be achieved by pooling BPS assets will permit access to larger investment opportunities in a wider array of asset classes. Other expected benefits from asset pooling include:

- higher risk-adjusted investment returns;
- lower investment management fees and expense ratios through an optimal combination of internal investment management and a larger asset base with external managers; and
- enhanced research and risk management supported by leading-edge information technology and expertise.

What's important to note for the PSPP and its members is that ownership of the assets and pension obligations of the Plan are not being transferred to IMCO. Both will remain with OPB, as will OPB's investment philosophies and policies as well as its asset allocation strategies. This will preserve the important interrelationship between the Plan's assets and liabilities. What will change are the management of the Plan's assets and the expectation of higher returns and lower relative investment costs in the future. For more information about asset pooling, see page 23.

### Why is working with trusted partners such an integral part of OPB's investment strategy?

In order to achieve strong results, building relationships with like-minded partners is critical. This approach helps OPB gain access to high-quality investment opportunities; enables us to leverage our partners' expertise in particular industry segments or geographic areas, leading to more informed and ultimately better investment decisions; and encourages the building of long-term, mutually beneficial relationships through which we are able to gain access to research on industry developments, market intelligence and investment trends.

OPB looks for like-minded partners who share a common approach and philosophy toward investing and understand the responsibility of being a fiduciary. This helps ensure we share a similar strategy for value creation and improves the alignment of interests with our partners.

Ultimately, OPB's culture is one that values trust, collaboration and accountability, and we look for partners that share similar values.

### Why is private markets an important part of OPB's diversified investment strategy? Why are you focused on growing it?

Given OPB's long-term investment horizon, investing in more private market assets is a natural way to enhance investment returns while adding diversification away from the more volatile public markets. Real assets (infrastructure and real estate) help protect the Plan from volatility because a larger proportion of their returns are in the form of ongoing stable cash flows. Private equity offers attractive risk-adjusted returns and allows improved diversification by asset type, industry and geography. Although fees can be higher for some private market investments, these are offset by higher net returns. In addition, privately negotiated transactions may offer better rights, protections and governance than are available in the public market.

The 2011 SAA first introduced Infrastructure and Private Equity to OPB's portfolio and increased the allocation to Real Estate. Since then, our 2014 triennial SAA review increased allocations for Infrastructure to 10% and Private Equity to 5%, and confirmed Real Estate's allocation as 23% (net of financing).

### How does OPB incorporate Environmental, Social and Governance (ESG) considerations into its investments?

OPB believes that supporting ESG initiatives will improve corporate transparency and disclosure practices; enable long-term investors, such as OPB, to better evaluate investment return–risk trade-offs; and ultimately support OPB's efforts to achieve the Plan's objectives. There is strong evidence that improved ESG engagement can have a positive impact on investment portfolio performance. Companies that follow the principles of *good governance* have less risk and generate higher long-term value for their shareholders. Supporting initiatives that promote corporate transparency allow for improved information flow, which increases the ability to better assess a company's risks and make a more informed investment decision.

OPB adopts a pragmatic approach to integrating ESG considerations into its investment policies and procedures. Some examples of actions taken in 2015 include:

- **Collective engagement**: OPB became a signatory to the United Nations–supported Principles of Responsible Investing, an important forum for collective engagement with companies and other enterprises where OPB believes improvement in disclosure practices and other ESG activities is necessary; and
- **Proxy voting**: We developed our own proxy voting strategy, which incorporates ESG considerations, among other relevant factors, into our voting of publicly traded securities. OPB views proxy voting as an important tool to encourage companies and other enterprises to provide adequate disclosure to shareholders relating to ESG factors, policies and initiatives.

It is also important that factors such as ESG are incorporated in a manner that supports OPB's overriding fiduciary responsibility to act in the best interests of Plan beneficiaries and for the long-term sustainability of the Plan.

## What other important goals or achievements did the Investments team deliver in 2015?

OPB's core investment goals for 2015 were:

- optimizing the implementation of our SAA;
- continuing to build on in-house expertise and management of assets; and
- enhancing our investment risk assessment and analysis as well as advancing our contribution to asset management.

### Optimizing the implementation of our SAA

The Investments team is executing on its multi-year plan of moving to an investment portfolio with a greater exposure to private markets. In 2015, all three private market asset classes exceeded their phase-in target weights. More impressively, during the building and deployment phase of the newer infrastructure and private equity asset classes, OPB has been able to invest directly in mature funds and in assets, avoiding paying fees to managers before they have actually made investments – a situation that can result in lower returns in the early years of a fund's existence.

### Continuing to build on in-house expertise and management of assets

OPB enjoyed success in 2015, selectively bringing the management of some of our public markets assets in-house from external managers (Internalization Program). The Internalization Program provides value-added portfolio management, while lowering costs and providing greater control and transparency. As part of the program, OPB performs a rigorous cost/benefit analysis and ensures back-office capabilities are in place prior to launching an internal mandate. Specifically, OPB launched a liquidity-based money market mandate designed to facilitate smaller funding requirements and a market-neutral portable alpha mandate designed to enhance fixed income returns with similar or lower risk.

### Enhancing our investment risk assessment and analysis as well as advancing our contribution to asset management

As OPB moved forward with the Internalization Program, it became increasingly important to advance and strengthen our investment risk assessment and reporting capabilities. Significant strides were made in 2015 with our in-house risk monitoring and measurement processes. Key successes included incorporating private markets investments into the risk analysis and enabling OPB to effectively review the impact of potential investment decisions on the Plan's risk positions. Another successful enhancement to the in-house risk tool is its ability to assess and manage Surplus at Risk, allowing OPB to measure the impact of portfolio decisions on risk as it relates to the Plan's liabilities.

## In light of ongoing volatility, what is your view/OPB's perspective on emerging markets? What factors will you be looking at to gauge the success of these investments in future years?

Investing in emerging markets is a long-term strategic decision to benefit from the relative wealth and growth shift from developed to developing economies. Maintaining a significant exposure to these emerging market economies provides a return-enhancing complement to other assets and strategies currently employed by the Plan. Our Emerging Markets portfolio is structured to benefit from various uncorrelated strategies. These range from working with investment managers who have a focus on capital preservation; to structuring complementary investment strategies; to allocating to satellite strategies such as small cap, China A-Shares and local emerging market debt. Since emerging markets tend to be inefficient and volatile, active management can provide the opportunity to exceed the Plan's benchmark return with lower risk. At the present time, valuations of emerging market assets are relatively cheaper than developed markets and currently provide a good opportunity for the Plan.

## What is your investment outlook for 2016?

There are a number of factors currently in place that are contributing to a reduction in global liquidity. After a historically lengthy period of financial easing, the U.S. central banking authority made its first attempt at raising or normalizing its policy interest rates in late 2015, and China continues to spend reserves to manage an orderly decline in its currency exchange rate. A historic collapse in energy prices has led to disarray in global debt capital markets, which were used to finance high-cost energy solutions. As global liquidity has reduced, so has the appetite for risk assets. The effective withdrawal of liquidity has brought about elevated market volatility that will likely remain in place for the foreseeable future. These circumstances, when coupled with relatively expensive valuation levels for equities, make the 2016 investment horizon very challenging – not dissimilar to the latter half of 2015.

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# Asset Pooling

In an increasingly sophisticated investment world, one of the best ways to tackle uncertain markets is through economies of scale. A larger base of assets means better opportunities – which is why we are looking to pool our assets through the new Investment Management Corporation of Ontario (IMCO).

## The financial benefits of asset pooling

**$50 billion**

**The approximate combined asset pool expected to be invested by the Investment Management Corporation of Ontario.**

**$2.0 billion**

**The amount that could be added to the Plan's assets (enhancement to funded status) assuming an average increase of 0.25% per year in annual investment returns for 15 years.**

In our 25 years administering the Plan, we've realized, first-hand, the significant investment value of partnering with large, world-class organizations that have long-term views similar to ours.

That's why we continue to take a lead role in creating an asset pooling arrangement with the Workplace Safety and Insurance Board (WSIB) – an initiative we expect to be operational in 2017. OPB expects that by spring 2017, IMCO will be operating as an independent investment manager for its first clients, OPB and WSIB, with investment and investment finance staff from both organizations, as appropriate, moving over to IMCO.

The combined pool of approximately $50 billion would:

- enable OPB to have access to top investment talent;
- enhance our investment decisions with strong research and risk management capabilities;
- greatly increase our ability to invest directly in high-quality opportunities; and
- help us realize higher risk-adjusted investment returns.

We believe asset pooling will boost investment returns, and even a small increase could have a significant impact. For example, if OPB were able to increase its annual investment returns by 25 basis points (1/4 of 1%) above the Plan's 5.95% discount rate, this would add approximately $2.0 billion to the funded status of the Plan at the end of 15 years.

## About the Investment Management Corporation of Ontario (IMCO)

As an independent statutory corporation, IMCO will provide investment management and advisory services to various Ontario broader public sector entities and funds to improve the overall risk-adjusted returns of its participants through the pooling of assets owned by them. OPB and WSIB are expected to be the first two members.

IMCO will invest OPB's assets in accordance with an Investment Management Agreement that will reflect OPB's investment philosophies and beliefs, investment policies and asset allocation targets (i.e., asset mix). OPB will not assume any liabilities of other IMCO members and there will not be any merger of the pension plans. Furthermore, IMCO will be a not-for-profit entity and operate on a cost-recovery basis.

One of our requirements to move forward with asset pooling was that OPB have governance influence over IMCO, which we have achieved by structuring it as a membership entity. As members, OPB and WSIB will have the right to appoint the majority of the initial board members (two members per organization, or four positions on the seven-member board).

## What asset pooling means to OPB

The pooled assets would be managed by a new investment manager, IMCO. OPB, however, will continue to own the assets of, and maintain its fiduciary responsibility to, the Plan. We will also maintain control of the strategic asset mix decisions and be responsible for its pension obligations and liabilities. OPB will also continue to maintain appropriate levels of internal investment competency, including a Chief Investment Officer (CIO), to manage and oversee the relationship with IMCO and report directly to OPB's Board.

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# Management's Discussion & Analysis

## Introduction

At the end of 2015, despite challenging markets, the Public Service Pension Plan (PSPP or the Plan) remained 98% funded on a going-concern basis. That achievement is thanks, in no small measure, to our Investments team's proven ability to manage through challenging markets and generate consistently strong returns.

In 2015, we continued to shift more of our assets from public markets to private market investments that offer the consistent long-term returns needed to keep the Plan sustainable for years to come. Our 6.14% return was a strong result given the economic conditions and volatile markets.

While investment performance remains a key focus for OPB, we also understand that service excellence and open, honest relationships with our stakeholders are of equal importance to the Plan's success. OPB is widely recognized as a leader in the global pension landscape – CEM, a leading benchmarking firm, ranks us second in pension administration among 13 Canadian peer plans, and fifth in the world out of 77 plans globally.

We're committed to upholding this reputation by delivering cutting-edge, world-class client service. To protect the pension promise, we implemented or advanced several key initiatives in 2015, as follows:

- increased our gross exposure to private markets investments by approximately $1.9 billion, including the high-profile acquisition of a 30% co-ownership interest in Toronto's iconic TD Centre;
- pursued and nurtured key relationships with like-minded institutional investors, by seeking out new co-investment and co-ownership opportunities;
- worked to advance the planned asset pooling initiative with the Workplace Safety and Insurance Board;
- revamped our Enterprise Risk Management (ERM) reporting process to give our Board of Directors and management team the information needed to more quickly identify and quantify potential risks, and to develop effective countermeasures;
- moved forward with initiatives to strengthen OPB's operational and investment risk management;
- launched an online portal for employers designed to reduce processing times for key transactions, while helping OPB to track key employer trends and focus support resources in the most efficient way;
- continued to promote our Advisory Services program launched in 2014 to provide members and retirees with the financial analysis they need to make informed pension decisions that align with their broader retirement goals and strategy;
- actively promoted the socio-economic value of the defined benefit (DB) model and demonstrated – by way of example – that DB plans are sustainable when well managed; and

- managed expenses strategically and responsibly so that we continue to meet and, ideally, exceed government expectations for fiscal restraint while continually improving our performance.

This section of the report expands on these and other important initiatives from 2015.

## Funding

A strong funded position is vital to our ability to deliver the pension promise. We are pleased to report that the Plan was approximately 98% funded at the close of 2015 on a going-concern basis.

The Plan's strong funded status can be attributed to solid investment returns and to lower-than-expected increases to public sector salaries and inflation rates. This position has been achieved despite the additional pension liability we've added to the Plan by strengthening our mortality assumption in 2013 in recognition of the fact that our pensioners are living longer.

For the purposes of the accounting basis valuation, the Plan's liabilities were calculated as of December 31, 2014, the date of the last funding valuation, and extrapolated to December 31, 2015. The extrapolated numbers are based on the assumption that the Plan's 2014 experience (for factors such as salary increases, retirement ages, and termination and mortality rates) match the Plan's actuarial assumptions. The extrapolation reflects indexing adjustments made to pensions as of January 1, 2015.

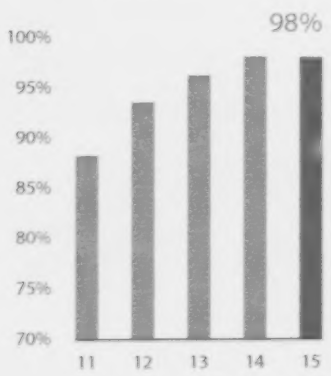
In the world of pensions, long-term plan sustainability trumps year-to-year results. Our commitment to effective pension plan management includes adherence to a robust funding policy. The Plan's current funding policy, developed with the Treasury Board Secretariat and approved by OPB's Board of Directors in 2014, guides decisions around Plan design, funding and valuation assumptions.

The Plan's discount rate is one key assumption used in valuations. It reflects what the Plan's assets can reasonably be expected to earn over the long term (less expenses and provisions for unanticipated events) and can influence Plan liabilities and, by extension, future contribution rates and benefit levels. The setting of the discount rate is a rigorous exercise designed to ensure the assumption is reasonable and aligns with the long-term investment returns OPB management believes can be achieved above our 5.95% discount rate. This is based on robust modelling that allows for a cushion.

OPB is scheduled to complete a long-term funding study in 2016 in conjunction with our next Plan valuation. This study, typically completed every three to five years, determines whether the funds flowing into the Plan (i.e., contributions together with net investment income) are sufficient to meet the pension promise in the years ahead.

If the 2016 study results show that adjustments to contributions and/or benefit levels are warranted by future developments – including changes to expected lifespans and membership levels, as well as continued market volatility – we would make recommendations for Plan adjustments to the Plan Sponsor (the Government of Ontario). Our last long-term funding study, in 2014, concluded that no changes were required at the time.

Funded status



### Funding

| What we did | Why it matters |
|---|---|
| Conducted an interim funding valuation | OPB is required to file a valuation with the Financial Services Commission of Ontario (FSCO) at least once every three years. Although not required by law to conduct a funding valuation again until December 31, 2016, OPB conducts interim valuations to ensure funding levels are tracking as expected. Our latest funding valuation measured the Plan's funding as of December 31, 2014. |

### Managing funding

The funded status of a pension plan is, in simple terms, determined by the "pension equation", which compares the value of pension assets on one side with the value of pension liabilities on the other. If assets exceed liabilities, the plan is said to be in a surplus position. If liabilities exceed assets, the plan is in a shortfall position.

During the 1990s, investment returns exceeded expectations, prompting many plans to focus more on assets than liabilities. At the same time, a number of factors, including declining interest rates and longer life expectancies, began to influence the long-term cost of the Plan's pension liabilities (obligations). The combined impact of higher pension costs and the onset of market volatility quickly eroded funding surpluses and left most plans facing funding shortfalls – in many cases, significant shortfalls.

At OPB, we pride ourselves on having always paid close attention to the liability side of the pension equation. Our focus on liabilities and adoption of conservative assumptions have contributed significantly to the Plan's continued financial health. Despite ongoing economic and financial market challenges, we've been able to progress along the path to full funding while keeping benefit levels stable and contribution rates affordable.

Our success in managing liabilities can be attributed to two key factors:

1. OPB and its stakeholders have, together, made informed and responsible decisions about the benefit levels promised by the Plan; and
2. OPB has done a good job of setting prudent and realistic demographic and economic assumptions, which are used to calculate the Plan's pension obligations, and has made contribution rate adjustments in a timely fashion when needed.

## Financial position

OPB conducts two different valuations on a regular basis – a funding basis valuation and an accounting basis valuation.

- The **funding basis valuation** is used to ensure there are sufficient assets to meet the Plan's pension obligations. It is also used to determine contributions to the Plan; and
- The **accounting basis valuation** is used to determine the surplus or deficit position of the Plan for reporting on our financial statements. The valuation is prepared in accordance with the Chartered Professional Accountants of Canada Handbook.

Both valuations provide a best estimate of the Plan's accrued pension liabilities and both are performed by an independent actuary appointed by OPB's Board of Directors.

**Financial position**

| Valuation type | Purpose and description |
|---|---|
| Funding basis valuation | Pension plans are legally required to file a funding valuation with the FSCO at least once every three years. OPB filed its 2013 valuation in September 2014. This valuation indicated that the Plan was 96% funded and had a shortfall of $0.8 billion. That compares to 94% funded with a shortfall of $1.2 billion at December 31, 2010 (the previous valuation filed with pension regulators).<br><br>Although OPB is not required by law to conduct another funding valuation until December 31, 2016, we conduct annual interim valuations to ensure that funding levels are tracking as expected. We are currently finalizing an interim valuation based on data available as of December 31, 2015. This valuation is expected to show that the Plan was 98% funded. In other words, the Plan's funding position continues to hold relatively steady. |
| Accounting basis valuation | For the purposes of the accounting basis valuation, the Plan's liabilities were calculated as of December 31, 2014, the date of the last funding valuation, and extrapolated to December 31, 2015. The extrapolated numbers are based on the assumption that the Plan's 2015 experience (for factors such as salary increases, retirement ages, and termination and mortality rates) match the Plan's actuarial assumptions. The extrapolation reflects indexing adjustments made to pensions as of January 1, 2015.<br><br>For financial reporting purposes, we have calculated the Plan's 2015 year-end financial position by comparing the extrapolated liability with the actual market value of assets as of December 31, 2015. Based on the accounting basis valuation as of December 31, 2015, the Plan had a deficit of $434 million (see Note 7 "Deficit" on page 76), compared to $332 million at year-end 2014. |

## Disciplined and astute investing

OPB's strategic long-term approach to investing is shaped by two key objectives:

1. securing and maintaining the pension benefits promised to members; and
2. maintaining relatively affordable contribution rates for members and participating employers.

To achieve these objectives, OPB has developed an investment approach that emphasizes capital preservation and seeks to generate strong, long-term investment returns within acceptable risk parameters by:

- minimizing unrewarded risk;
- reducing absolute volatility;
- focusing on fundamental research and analysis to make investment decisions; and
- sourcing global investment opportunities that provide predictable cash flow.

During 2015, our Investments team focused on three key areas:

1. optimizing the implementation of our Strategic Asset Allocation (SAA) to increase our exposure to private markets;
2. continuing to build on our in-house expertise and asset management capabilities; and
3. enhancing our investment risk assessment and analysis and advancing its contribution to the management of assets.

These key areas of focus are discussed in more detail on the following pages.

## Strategic Asset Allocation (SAA)

The current SAA targets, updated in 2014 following the triennial asset/liability study, help us better meet the Plan's long-term funding objectives and effectively manage investment risk. The updated targets, which called for a shift in the Plan's assets from public to private markets investments, continue to ensure superior diversification and generate enhanced risk-adjusted returns.

In 2015, OPB continued to implement the updated SAA targets according to the planned five-year phase-in period that began in 2014. The updated SAA for private markets doubled the target allocation for infrastructure, increased private equity by two-thirds and maintained the real estate target. More private markets assets help insulate the Plan from public markets volatility and, in the case of real assets, enable us to generate a larger proportion of returns from ongoing cash flow versus capital appreciation. Private equity investments are also less volatile than public market equities and offer attractive risk-adjusted returns. The team also continued the transition from universe bonds to long bonds, which provide a better match with the Plan's long-term cash flow needs.

In 2015, all three private markets asset classes exceeded their phase-in SAA target weights. As we move forward with our search for global opportunities, OPB will continue to be thorough in its analysis, and take measured, smart risks. We consider what role an investment will play in our portfolio (from both a risk and return perspective) and whether it complements our existing holdings.

**SAA asset mix targets**

| Asset Categories | 2014 Current SAA[1] Target | 2011 Previous SAA Target |
|---|---|---|
| Cash and Equivalents | **3.0%** | 2.0% |
| Universe Bonds | **0.0%** | 18.0% |
| Long Bonds | **17.0%** | 0.0% |
| Real Return Bonds | **5.0%** | 5.0% |
| Canadian Equities | **7.5%** | 10.0% |
| Foreign Developed Equities | **15.5%** | 17.0% |
| Emerging Equities | **14.0%** | 15.0% |
| Real Estate | **23.0%**[2] | 25.0% |
| Infrastructure | **10.0%** | 5.0% |
| Private Equity | **5.0%** | 3.0% |
| Total Investments | **100.0%** | 100.0% |

[1] The 2014 SAA targets are the ultimate targets to be phased in over a five-year period. This is distinct from the SAA targets that are disclosed in Note 4(a) of the Financial Statements, which are the transition plan's year-end target allocation.

[2] Net of financing.

## Enhancing in-house asset management capabilities

OPB continued to build on its in-house expertise and management of assets in 2015. In addition to the growth of its private markets investments, OPB advanced its Tactical Asset Allocation (TAA) strategy and continued to selectively in-source components of the Public Markets portfolio.

Leveraging evolving policies, procedures and strategies, we were able to make timely TAA decisions in 2015 that helped bolster our overall investment results. For example, in August 2015, in anticipation of increased market volatility before the subsequent downturn in equity markets, the Asset Mix Committee took steps to preserve stakeholder capital by opening a relative short position in equities (i.e., reducing the Plan's exposure to equity markets) and purchasing protective put options. The strategy was well timed. Not only did the reduced exposure to public equity markets help preserve capital but the Plan benefited from the increased market volatility as the value of the put options increased during the subsequent market turbulence.

As part of the initiative to in-source the asset management of select public markets investments (Internalization Program), OPB developed and deployed several new mandates internally in 2015, including a liquidity-focused money market mandate and a market-neutral strategy. By implementing and supporting further internal asset management, we are better able to agilely respond to market movements and opportunities and generate incremental risk-adjusted returns on a cost-effective basis.

## Investment risk assessment and analysis

As OPB moves forward with the Internalization Program, it is increasingly important that we advance and strengthen our investment risk assessment and reporting capabilities.

In 2015, we developed a robust risk-attribution modeller that allows us to better integrate liability and risk considerations into the investment decision process. We also continued to enhance key systems that give us the ability to capture, process, manage and use data to provide management with enhanced investment reporting that allows for more informed decisions. We use this data for:

- performance measurement;
- attribution, which identifies key drivers of investment performance;
- trade capture and portfolio management;
- tracking private markets deals;
- managing key documents; and
- supporting internal management of equities, fixed income, currency and derivatives.

**Investment**

| What we did | Why it matters |
|---|---|
| Achieved an annual investment return of 6.14% | Despite ongoing market volatility, good investment returns helped keep the Plan's funded status steady at 98% as of December 31, 2015. |
| Adjusted our SAA | The Investments team continued working to meet the adjusted SAA targets identified in 2014 to better match the Plan's liability profile. Targets were adjusted to place more emphasis on Private Markets investments and long-term bonds. |
| Advanced our TAA strategy | Our TAA strategy helps enhance returns by taking advantage of perceived market anomalies at various points in the market cycle and preserving capital in volatile markets. Timely TAA decisions in 2015 were key to bolstering our investment returns. |
| Increased our exposure to private markets investments by approximately $1.9 billion | Private markets investments help insulate the Plan from public markets volatility and enable us to generate a larger proportion of returns from ongoing cash flow versus capital appreciation. |
| Leveraged a key partnership to acquire a 30% co-ownership interest in Toronto's iconic TD Centre | This significant acquisition will further position us as a trusted investment partner – and should help us attract additional partnership opportunities in the future. |
| Increased our investment in private equity by more than 50% | Private equity is less liquid, but generally provides higher returns than public equity over the long term. We can leverage our long-term focus to generate value-added returns. We also diversified the portfolio by increasing our exposure to Western Europe. |
| Increased our investment in infrastructure by more than 50% | The Infrastructure portfolio focuses on core infrastructure investments that provide a steady stream of cash flow, stable returns during periods of equity market volatility, and a hedge against inflation. In 2015, we acquired a co-investment interest in regulated electricity assets in Spain, as well as an interest in two airports in Australia. |

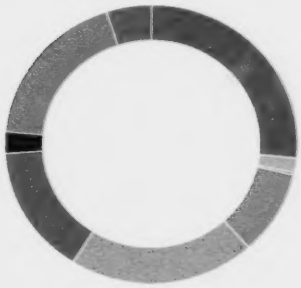
## Asset mix

Asset mix is the single most important driver of investment performance. At OPB, asset mix is defined in our SAA, with deviations based on our TAA strategy.

OPB's asset mix comprises:

- Interest-bearing investments (cash, short-term investments and fixed income investments);
- Public Equities (stocks); and
- Private Markets investments (Real Estate, Infrastructure and Private Equity).

Asset mix
As at December 31, 2015



**26.7 %** Fixed Income[1]
**1.8 %** Long Bonds
**0.3 %** Real Return Bonds
**9.8 %** Canadian Equities
**20.5 %** Foreign Developed Equities
**15.0 %** Emerging Equities
**2.4 %** Private Equities
**18.5 %** Real Estate
**5.0 %** Infrastructure

[1] The Fixed Income amount contains the negative value of -0.3% Cash and Equivalents

## Bond offerings

OPB completed two private bond financings in 2015, raising $500 million. Issuing bonds allows us to enhance the return on our rental property portfolio in a cost-effective manner; the financing allows OPB to add high-quality assets to its Real Estate portfolio which generate cash flows greater than the amounts needed to cover the interest payments on the OPB bonds.

Bond issues are rated by credit agencies, and we are very pleased that our bond issues received strong ratings from both Standard & Poor's (S&P) and Dominion Bond Rating Service (DBRS), which confirmed our ratings at AA+ (S&P) and AA high (DBRS).

In February 2015, OPB completed its fourth private placement of bonds in the amount of $250 million (Series "D"). The seven-year offering was priced with a 1.88% annual coupon (interest payment to bondholders) and was OPB's most broadly distributed bond issue to date. The 1.88% annual coupon was the lowest pension sector coupon ever achieved, as well as the lowest seven-year coupon ever recorded in the Canadian corporate market. Net proceeds from the bond issue were loaned to two wholly owned real estate subsidiaries and a real estate trust previously established for the benefit of OPB. In turn, these entities partially repaid amounts previously loaned to them by OPB for the acquisition of real estate assets, most notably Centre 10, a newly constructed, fully leased office building in Calgary.

In November 2015, OPB reopened its Series "D" bonds and issued another $250 million. The net proceeds from this bond issue were loaned to a wholly owned real estate subsidiary that, in turn, partially repaid an amount loaned to it by OPB for the acquisition of a 30% co-ownership interest in the Toronto TD Centre.

## Investment performance

Investment excellence continues to be a top priority for OPB. The Investments team is pleased with the performance of the Plan in 2015. Our overall annual return of 6.14% exceeded the portfolio benchmark by 77 basis points and helped maintain the current funded status of the Plan.

The continued expansion of OPB's in-house capabilities gives us the agility we need to quickly pursue innovative, cost-effective investment opportunities – an essential advantage in fast-changing markets. Other factors bolstering our results included timely TAA decisions and the strong performance in our Private Markets portfolio.

Given that pensions are accrued and paid out over decades, pension plans need to take a long-term perspective. As such, our investment approach emphasizes capital preservation and seeks to generate strong long-term returns that limit exposure to market volatility and lower absolute risk. On a four-year basis, our compounded annualized return has exceeded the portfolio benchmark by 1.32% (132 basis points) per year.

Following is a more detailed look at our performance results by asset class.

### Interest-bearing investments

Interest-bearing investments give the Plan a stable source of cash flow. They also help preserve capital in times of market volatility. As of December 31, 2015, interest-bearing investments accounted for 28.8% of the Plan's net assets and included:

- **Fixed Income** – The Plan's fixed income portfolio provided a solid return of 3.8% in 2015, ending the year valued at $6.6 billion. That compares to a 9.1% return in 2014, when the year-end value was $6.2 billion.
- **Private Debt** – Within the Plan's fixed income portfolio, Private Debt assets consist mostly of high-quality, investment-grade, income-bearing fixed income products of various maturities that are unavailable in the public market. These investments typically offer higher yields than public bonds and, with appropriate issuer collateral and financial covenants, can reduce investment risk. The portfolio returned 8.7% in 2015, with a year-end value of $390 million. That compares to a return of 6.5% and a year-end value of $421.3 million in 2014.

In 2015, we:

- continued to transition from universe to long bonds, which provide a better match for the Plan's long-term cash flow needs;
- launched a liquidity-focused money market mandate and a market-neutral strategy incorporating an indexed bond portfolio; and
- developed the capability to transact in OTC Interest Rate Swaps, providing management with another tool to manage interest rate risk.

### Public Equities

OPB continued shifting assets from Public Equities to Private Markets, as part of the SAA shift initiated in 2011 and confirmed in the 2014 asset/liability study. As of December 31, 2015, Public Equity investments accounted for 45.3% of OPB's net assets, compared to 51.7% at year-end 2014. We in-sourced select public markets assets identified as part of OPB's Internalization Program, which better positions us for value-added portfolio management, lower costs and greater control and transparency. The Plan also benefited from a transition to active foreign currency management of its developed markets equity positions in 2015.

The Plan's Canadian equity portfolio returned -9.3% in 2015. That compares to 8.7% in 2014. The year-end market value of the portfolio was $2.2 billion, compared to $2.3 billion at year-end 2014.

The Plan's foreign developed equity portfolio generated a return of 21.7% in 2015. That compares to 13.1% in 2014. At year-end 2015, the portfolio held a market value of $4.7 billion, compared to $5.3 billion at year-end 2014.

The Plan's emerging markets equity portfolio returned 5.0% in 2015, compared to 10.2% in 2014. As of December 31, 2015, the portfolio's market value was $3.5 billion, compared to $3.9 billion at year-end 2014.

## Private Markets investments

As previously indicated, our Investments team continued to shift assets from Public to Private Markets in 2015. Real assets help protect the Plan from Public Markets volatility as a larger proportion of their returns are in the form of ongoing stable cash flows versus capital appreciation. Private equity offers attractive risk-adjusted returns and allows improved diversification by asset type, industry and geography. OPB's Private Markets investment strategy involves acquiring first-class real estate properties, core infrastructure assets and private equity buyouts through a combination of direct investment, fund investments and co-investments.

OPB increased its gross exposure to private markets investments by approximately $1.9 billion in 2015, increasing both our Infrastructure and Private Equity portfolios by more than 50% and our Real Estate portfolio by 30%. Our reputation as a trusted and respected partner provides us access to sought-after assets that may not otherwise come to market. This is a distinct advantage, especially as demand for private markets assets becomes increasingly competitive. Investing directly and through co-ownership and co-investment opportunities helps us deploy investment dollars more quickly and reduce investment fee drag.

As of December 31, 2015, Private Markets investments accounted for 26.0% of OPB's net assets, up from 20.5% at year-end 2014. The market value of these investments as of December 31, 2015 was $6.0 billion, up from $4.5 billion at year-end 2014.

Our Private Markets portfolio has a winning track record – posting positive returns from day one. The portfolio's success can be attributed to several factors:

- our disciplined approach to investing;
- our success in avoiding the J-curve effect (a situation that results in lower returns in the early years – paying fees to managers before they have actually made investments) by investing in assets directly or in more mature funds;
- strong relationships with partners who continue to give us access to top-quality investment opportunities; and
- our ability to negotiate the best possible investment fees.

The following is a more detailed breakdown of Private Markets assets by asset class.

**Real Estate** – OPB's Real Estate portfolio is presented net of financings and made up of:

- direct and indirect holdings in quality Canadian rental properties;
- direct and indirect holdings in international real estate; and
- a modest investment in participating mortgages.

Real estate assets provide strong cash-flow generation, more stable returns than equity market assets, and a hedge against inflation – which makes them a good match for the Plan's long-term pension liabilities. Our allocation to real estate assets as of December 31, 2015 stood at 18.5%. The portfolio's net market value at year-end 2015 was $4.3 billion, compared to $3.4 billion a year earlier.

OPB's Real Estate portfolio returned 12.2% in 2015, compared to 5.0% in 2014. Since 1994, when OPB made its initial investment in real estate, the portfolio has generated an average annual return of 10.6%. The Real Estate portfolio return is measured net of privately issued bonds guaranteed by OPB of $1.250 billion (par value) at the end of 2015 ($750 million (par value) as at December 31, 2014) and any property-specific mortgages. The objectives of the Plan's financing strategy are:

- improving returns on OPB's rental property portfolio;
- improving the funded status of the Plan over the longer term; and
- creating a partial hedge against a decline in the market value of the Plan's rental properties arising from higher interest rates in the future.

OPB continued to make key additions to its Real Estate portfolio in 2015. Of particular note, we leveraged a key partnership to acquire a 30% co-ownership interest in Toronto's iconic TD Centre from Cadillac Fairview. We anticipate that this high-profile acquisition will help us attract additional partnership opportunities in the near future.

Our Investments team added to our Manhattan office property holdings by co-investing in two more office towers, with a third building under contract that was completed in mid-January 2016. We also realized significant profits from the sale of our partnership interest in OPB's first New York real estate fund investment and partial co-investment interests in four Manhattan office buildings. As of December 31, 2015, OPB co-owns eight office buildings in Manhattan. The portfolio's international content also includes several properties under development in London and Paris.

The major portion of our Real Estate holdings consist of rental properties located in Canada. As of December 31, 2015, our Canadian holdings included ownership interests in approximately 8.5 million square feet of retail space and 6.3 million square feet of office space. A full list of our Canadian real estate holdings can be found on page 83.

**Infrastructure** – OPB's Infrastructure portfolio was first introduced in 2011. The Investments team focuses on core infrastructure assets that provide a steady stream of cash flow, stable returns during periods of equity market volatility, and a hedge against inflation.

In 2015, we increased our infrastructure investments by almost 55%. This included acquiring a co-investment interest in regulated electricity assets in Spain, as well as an interest in two airports in Australia. The latter marked our first private investment in Australia, and doubled our investments in airports.

Our Infrastructure portfolio returned 16.3% in 2015, compared to 9.8% in 2014. The portfolio had a year-end value of $1.17 billion, compared to $754.6 million at the end of 2014.

**Private Equity** – Private equity consists of equity securities not publicly traded on a stock exchange. Private equity tends to be illiquid and returns are generated principally from capital appreciation over the mid- to long term. Because of the added liquidity risk, returns for private equity are typically higher than those expected from public equities. OPB's long-term timeline positions us well to earn value-added returns from this increasingly important asset class.

By focusing on more mature investments since entering the asset class in 2012, we have achieved vintage year diversification and the portfolio began receiving distributions (in the form of income and capital gains) almost immediately.

In 2015, OPB increased private equity investments by 56%. We increased our exposure to Western Europe, adding diversification benefits to our U.S.-focused portfolio.

As of December 31, 2015, OPB had remaining unfunded commitments of $565.0 million to Private Equity, up from $345.0 million at December 31, 2014. The portfolio generated a return of 38.2% in 2015, compared to 25.4% in 2014, and had a year-end value of $561.8 million (compared to $359.8 million at the end of 2014).

## Investment outlook

We expect volatility to continue in financial markets for the foreseeable future. A number of factors are already contributing to reduced global liquidity, including a historic collapse in energy prices, the commencement of interest rate increases by the U.S. central banking authority, and the decision by Chinese authorities to sell foreign exchange reserves to manage an orderly decline in their currency.

After a lengthy period of financial easing, the U.S. Federal Reserve concluded its quantitative easing program in 2014 and commenced the process of normalizing its policy interest rates in 2015. This reduction in monetary stimulus had the impact of withdrawing liquidity from risk assets, thereby exacerbating financial market volatility. In China, economic growth has slowed as the leadership attempts to control the rebalancing of its economy from one dependent upon fixed asset investment and exports, to one that is consumption-based. Accelerating this transition are recent policy decisions by Chinese authorities to loosen capital markets controls and to support a depreciating currency. Adding to global growth uncertainty are weak energy prices that have led to disarray in global debt capital markets, further exacerbating the withdrawal of liquidity.

As global liquidity has been reduced, so has the support for risk assets, elevating market volatility and uncertainty. When coupled with relatively expensive valuation levels for equities and slowing global growth, the investment horizon for 2016 could be challenging.

With a focus on capital preservation and established TAA capability, OPB is well placed to manage the anticipated market challenges over the next year. Going forward, OPB will continue to implement investment strategies that manage through market volatility, avoid unnecessary risk and generate the incremental returns needed to protect the long-term sustainability of the Plan.

Other initiatives that will support this strategy are:

- continuing to advance our in-house TAA capability;
- further evaluating and selectively in-sourcing additional components of our Public Markets portfolio; and
- continuing to build our front-, middle- and back-office expertise and enhancing our infrastructure (systems, tools, software) to support the Plan's increasingly complex investment mandate.

## Return on investments and benchmarks

OPB has adopted a Statement of Investment Policies & Procedures (SIP&P) which defines:

- the Plan's investment objectives;
- permitted categories for investments;
- asset mix targets; and
- rate of return expectations.

The SIP&P is reviewed annually and was last amended on November 4, 2015.

The Plan's expected long-term real rate of return, as set out in the SIP&P, is a minimum of 3.85% per year, net of expenses. This figure is equal to the Plan's discount rate (the assumed interest rate used to calculate, in today's dollars, the value of the Plan's future liabilities) of 5.95%, which is the rate used for the long-term funding of the Plan less an assumed inflation rate of 2.10% per annum.

OPB's total annual rate of return is measured against a composite index, referred to as the Total Benchmark. The Total Benchmark takes the weighted average of the benchmark returns for each of the different investment categories, using the target phase-in allocation of the SAA to determine the weightings. The Plan's relative rate of return expectation for the year is set to equal or exceed the Total Benchmark (net of fees). The Plan's rate of investment return for 2015 was 6.14%; the Total Benchmark return for the year was 5.37%.

**Annual rate of investment return**

| | | Annual Rate of Investment Return (%) | | | |
|---|---|---|---|---|---|
| | | 2015 | | 2014 | |
| **Asset Categories** | **Benchmark** | **Actual[1]** | **Benchmark** | Actual[1] | **Benchmark** |
| Cash and Equivalents | FTSE TMX 91 Day T-Bill | **7.0%** | **0.6%** | 3.1% | 0.9% |
| Fixed Income | FTSE TMX Bond Universe | **4.9%** | **3.5%** | 9.6% | 8.8% |
| Long Bonds | FTSE TMX Long Bond | **3.4%** | **1.3%** | n/a | n/a |
| Real Return Bonds | FTSE TMX RRB | **2.5%** | **0.9%** | 0.0% | 13.2% |
| Canadian Equities | S&P/TSX Composite Index | **-9.3%** | **-8.3%** | 8.7% | 10.6% |
| Foreign Developed Equities | MSCI World (C$) | **21.7%** | **19.5%** | 13.1% | 15.0% |
| Emerging Equities | MSCI Emerging Equity Index (C$) | **4.8%** | **2.4%** | 13.1% | 7.0% |
| Real Estate | Custom Real Estate Benchmark | **12.2%** | **7.0%** | 5.0% | 6.9% |
| Infrastructure | Custom Infrastructure Benchmark | **16.3%** | **16.3%** | 9.8% | 9.8% |
| Private Equity | Custom Private Equity Benchmark | **38.2%** | **38.2%** | 25.4% | 25.4% |
| Total Investments | Composite Index | **6.1%** | **5.4%** | 8.4% | 9.4% |

[1] Actual returns shown are gross of fees, except for real estate, infrastructure and private equity returns, which are shown net of fees.

## Responsible Investing beliefs

OPB supports Responsible Investing (RI) through a number of investment initiatives that align well with OPB's broader investment objectives *and* are resource-efficient in terms of both time and money. The combination of OPB's investment objectives and RI beliefs translates into an RI approach that:

1. supports collaborative initiatives that aim to further corporate governance issues (e.g., improving corporate disclosures);
2. adopts a pragmatic approach to integrating environmental, social and governance (ESG) considerations into the investment decision process led by both internal and external investment managers (both Public and Private Investments); and
3. utilizes proxy voting as a tool to engage corporations to focus on ESG issues and advocate for transparency and disclosure standards.

To support our approach, we developed our own proxy voting strategy in 2015 and developed the capability to vote proxies in-house instead of having external managers vote on our behalf. The goal is to ensure that proxy voting is incorporated in a manner that supports the Plan's fiduciary responsibilities. Further, we adopted an ESG statement within the strategy that recognizes the three main areas of concern used to measure the sustainability and ethical impact of a particular investment.

OPB also joined the United Nations-supported Principles for Responsible Investment (UNPRI) initiative. This international network of investors is collaborating to put RI into practice and help build a more sustainable global financial system.

## Asset pooling

In an increasingly complex investment world, one of the best ways to tackle uncertain markets is through economies of scale. A larger pool of assets to invest means better opportunities – which is why we are looking to pool our assets through the Investment Management Corporation of Ontario (IMCO).

In our 25 years administering the Plan, we've realized, first-hand, the significant investment value of partnering with large, world-class organizations that have long-term views similar to ours.

## Background

In 2008, the report entitled *Ontario Expert Commission on Pensions* highlighted the importance of fund size in pension policy innovation. The report noted that smaller and medium-sized pension plans were unable to operate across the full investment spectrum, generally lacking the necessary infrastructure, resources, expertise and/or inclination to undertake maximum portfolio diversification. Following a mandate in the 2012 provincial budget, the report entitled *Facilitating Pooled Asset Management for Ontario's Public Sector Institutions* led by now-current federal Finance Minister Bill Morneau found that a pooled asset arrangement for broader public sector plans in Ontario would result in the following efficiencies:

- Significant cost advantages of scale, particularly as it relates to the development of in-house expertise;
- More cost-effective access to alternative asset classes made possible through a larger fund, which can reasonably be expected to result in more diversified investments; and
- A pooling framework, which should help the potential achievement of higher returns.

Much of the recognized success of the larger Canadian pension plans has come through the implementation of internal investment management. There is strong evidence to suggest that large pension plans outperform smaller and medium-sized plans, with lower relative investment costs, better overall returns and improved diversification across asset classes.

To further explore asset pooling, a BPS (broader public sector) working group was formed. Both OPB and the Workplace Safety and Insurance Board (WSIB), as the two largest Ontario public sector funds who could deliver immediate scale to and benefit from the asset pooling initiative, played a lead role in this process. Having OPB and WSIB as the first two members (or clients) in this investment management arrangement would result in a combined approximate pool of $50 billion that would:

- enable OPB to have access to top investment talent;
- enhance our investment decisions with strong research and risk management capabilities;
- greatly increase our ability to invest directly in high-quality opportunities; and
- help us realize higher risk-adjusted investment returns.

## Structure

The fundamental principles that guide the asset pooling initiative focus on three structural components: investment manager, governance and investments.

### Investment manager structure

- Participation to be voluntary, not mandatory;
- Ability to accept pension and non-pension asset management mandates;
- Independent of government and any one client;
- Investment manager to operate on a cost recovery basis;
- Board of directors structured to ensure alignment of (long-term) interests with clients; and
- High-calibre investment team.

### Governance structure

- Board of directors must qualify as an "expert board" with the majority of directors, including the board chair, unaffiliated with any one client or government;
- Initial participants, in consultation with government, will agree on process for initial board chair appointment, nominate majority of directors and establish a framework for nomination of subsequent participants;
- No overlapping members of board and clients' boards of directors; board size to be capped to maintain an effective governance structure with term limits; and
- Periodic reviews of the investment manager to ensure that it is operating efficiently, effectively and in accordance with best practices, where directors have the full range of skills required for oversight, as established by a skills/needs matrix.

### Investment structure

- Accommodate different client asset mix requirements; provide assistance to clients in developing an appropriate asset mix in accordance with the client's SIP&P;
- Ownership of client assets to remain with clients (i.e., not to be transferred to the investment manager or government);
- Investments to be structured to: (i) achieve compliance with all applicable laws, (ii) preserve Canadian tax-exempt status of clients; and (iii) minimize foreign taxes; and
- An appropriate mix of internal/external investment management to be adopted; illiquid pools to require lock-ups/longer exit periods.

We believe asset pooling will boost investment returns, and even a small increase could have a significant impact. For example, if OPB were able to increase its annual investment returns by 25 basis points (1/4 of 1%) above the Plan's 5.95% discount rate, this would add approximately $2.0 billion to the funded status of the Plan at the end of 15 years.

## Investment Management Corporation of Ontario

The pooled assets would be managed by the new Investment Management Corporation of Ontario (IMCO). However, OPB would continue to own its assets and maintain its fiduciary responsibility to the Plan.

The purpose of IMCO, an independent statutory corporation, is to provide investment management and advisory services to various Ontario BPS entities and funds (including OPB and WSIB as the initial members) in order to improve the overall risk-adjusted returns of its participants through the pooling of assets owned by them.

Key requirements designed to be protective of OPB's (and WSIB's) investment programs achieved in the IMCO legislation include:

- Independence from government (i.e., not a Crown Agency);
- Consultation by the Ministry of Finance with OPB and WSIB on the appointment of the IMCO Board Chair;
- An expert and independent Board of Directors with skills and competencies to cover investment management, risk management, investment finance, corporate governance, human resources, accounting, legal matters, etc.; and
- Regulations to set out which BPS organizations are permitted to be members of IMCO.

OPB and WSIB will appoint a joint majority of IMCO's initial Board of Directors (appoint two each – four of the seven IMCO Board members).

## Implementation

The current timetable for the government's approval of the regulations to the *IMCO Act*, including the naming of OPB and WSIB as the initial members, the proclamation of the *IMCO Act* and the appointment of the Chair and initial Board of Directors, is mid-2016. With governance in place, the IMCO Board will be tasked with the recruitment of a Chief Executive Officer later in 2016. OPB expects that by spring 2017, IMCO will be operating as an independent investment manager for its first clients, OPB and WSIB, with investment and investment finance staff from both organizations, as appropriate, moving over to IMCO.

The transfer of OPB's investment management function to IMCO will be subject to an executed contractual agreement between OPB and IMCO (Investment Management Agreement or IMA). Subsequent to the transfer of the investment management function to IMCO, OPB will continue to:

- own its assets;
- be responsible for its liabilities and only its liabilities;
- have its own Statement of Investment Policies and Benefits and SIP&P;
- conduct its triennial asset/liability (A/L) study; and
- establish its own SAA policy.

In order for OPB to perform the functions listed above and to ensure uninterrupted and clear communications on all investment matters, including required performance reporting, between OPB and IMCO, as well as to maintain a direct liaison with OPB's Board, it is intended that there will continue to be an investment function (CIO and administrative support as required) at OPB. It is also intended that there continue to be an investment accounting function at OPB.

IMCO will invest OPB's assets in accordance with the IMA and subject to OPB's investment philosophies and beliefs, investment policies and asset allocation targets (i.e., asset mix). OPB will not assume any liabilities of other IMCO members and there will be no merging of pension plans. Furthermore, IMCO will be a not-for-profit entity and operate on a cost recovery basis.

Part of the fundamental value IMCO will offer PSPP members is the sustainability of a competitive, qualified and properly resourced investment team, as well as improved risk management and investment monitoring through best-in-class systems and people.

OPB is currently positioned to generate the long-term returns needed to fund the pension promise, even without asset pooling. However, we believe IMCO will benefit the PSPP by providing economies of scale that will facilitate greater access to larger and more diverse investment opportunities at a lower relative cost than we could achieve on our own. It will also give us enhanced risk management capabilities and permit the optimal use of internal versus external management to deliver world-class investment expertise with the expectation of delivering enhanced risk-adjusted returns.

## Service excellence

OPB remains committed to providing world-class service to our members. We have focused considerable efforts on finding innovative ways to meet our clients' needs in a cost-effective and meaningful manner.

OPB announced the launch of our Advisory Services program in 2015, an innovative initiative designed to help protect the interests of clients by giving them the financial analysis they need to make informed pension decisions at critical times. The program is built on our belief that active and retired members need to understand the implications of their pension decisions, and how these benefits fit within their broader retirement planning. To our knowledge, we are the only DB plan in the world to offer this type of member service.

In its first year, the Advisory Services team of in-house Certified Financial Planners® – supported by a suite of electronic services – helped approximately 2,500 clients navigate critical pension decisions. Heading into our second full year, we will look to build on the following impressive numbers from 2015:

- 2,472 Advisory Sessions – up from 2,050 total sessions in 2014 during the soft launch;
- 97% of client care calls answered within 30 seconds, with an average wait time of three seconds;
- 75% of interactions with Advisory Services include buybacks, retirements or terminations;
- 47% of members and 29% of pensioners/retired members are currently registered on our e-services portal;
- 44% of registered members are making use of the self-serve options in the portal, with three-quarters using the pension estimate tool;
- top services being used include updates to marital status (55%), current address (43%) and beneficiaries (32%);
- 9% of members are now using the portal to initiate retirement activities; and
- traffic to the e-services portal has seen an increase of approximately 12% to roughly 38,000 logins. This is consistent with our evolving digital strategy as we move forms from the public site to the self-service area on e-services.

In response to emerging technology and evolving client needs and preferences, we continue to enhance our digital services – and to become more mobile-responsive and interactive across our web channels. We recently hired a digital content strategist to help improve the digital experience for members as well as identify opportunities to expand our digital presence, broaden our communications strategy and, ultimately, help us to improve the effectiveness of our client initiatives. As our clients become more sophisticated, we need the tools to be able to support their service demands as we continue to provide a secure online environment with a strong focus on the privacy of our members' data. Starting in 2016, we will work with IT to ensure we invest in the technology we need to move us forward in our client-first strategy.

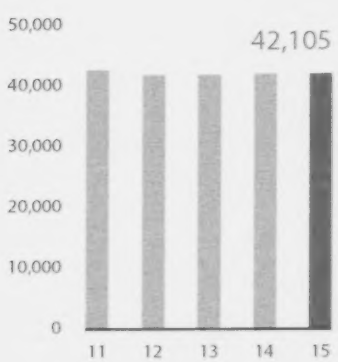
Everything we do is ultimately about ensuring that every client realizes, to the extent possible, full value for their participation in the Plan. The innovations and transformative initiatives that we focused on in 2015 will help reinforce our reputation as a market leader and one of the world's top five pension providers.

**Service**

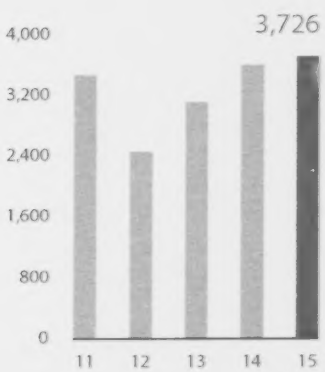
**2015 Initiatives**

| What we did | Why it matters |
|---|---|
| Formally announced our Advisory Services program | Pension issues are complex, and inopportune decisions can potentially have a significant impact on an individual's financial future. Advisory Services provides our clients access to Certified Financial Planners® and Registered Retirement Consultants® to assist them in making sound decisions about their pensions within their broader financial circumstances, helping them avoid costly mistakes that could negatively impact their retirement security. |
| Hired a digital content strategist | This individual has a mandate to identify opportunities to expand our digital presence and broaden our communications strategy, in order to better serve client needs in the coming years. |

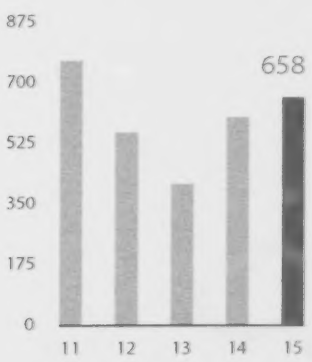
Number of active members




Enrolments




Buybacks completed



## Proactive advocacy

Pension and retirement security issues have gained growing attention from governments, media and Canadians. At OPB, we believe that well-designed, well-managed DB pension plans remain the best option for delivering efficient, affordable and sustainable retirement income. DB plans have a long track record of providing members with a secure retirement income.

Studies also show that DB plans play an important role in stimulating our economy, by providing retirees with disposable income that is pumped back into the economy. Just as important, these plans provide an important source of investment capital.

OPB continues to advocate strongly for the DB model as well as shared-risk or DB-type plans – and to help ensure that policy-makers and thought leaders understand the many socio-economic advantages that the DB model provides. Our ultimate goal is to advocate for a viable and meaningful retirement system for all Canadians, and to promote the importance of long-term financial planning. We continue to promote these issues in a wide array of public, private and government forums. In particular, we believe that shared-risk plans retain the best features of the DB model, while spreading the risk of unfunded liabilities between members and plan sponsors. These sustainable DB-type models could easily be made accessible to a broader range of working Canadians. To that end, we applaud the Government of Ontario's initiative to ensure that all Ontarians have access to "comparable" plans by introducing the Ontario Retirement Pension Plan (ORPP).

We are also working closely with the Government of Ontario and the Workplace Safety and Insurance Board to advance the planned asset pooling initiative. Pooling the assets of smaller public sector plans can create important economies of scale, generate larger and higher quality investment opportunities, and improve investment returns.

### Advocacy

| What we did | Why it matters |
|---|---|
| Continued to promote the DB pension model | We believe DB plans are the best option for providing retirement security and adequate income for retired Canadians. With that in mind, we continued to publicly promote the value of the DB model – ensuring that decision-makers and thought leaders understand the model's many advantages. |
| Continued to advocate for regulators to allow sustainable shared-risk plans (i.e., DB-type plans) for all Canadians | Shared-risk plans, which retain the best features of the DB model and divide the risk of unfunded liabilities between members and plan sponsors, are a sustainable option that could be used to provide meaningful retirement income for all working Canadians. |
| Continued to lay the groundwork for asset pooling | Asset pooling will open the door to a broader range of investments and partnerships, which we believe will boost our long-term returns. The resulting incremental investment returns would contribute to maintaining the stability of benefits and contribution rates and support the long-term sustainability of the Plan. |

## Outstanding stakeholder relations

OPB's "shared governance" model helps to ensure that all key stakeholders have (1) the information they need to make informed decisions and (2) a meaningful voice in Plan administration. It's an open, collaborative approach that has earned us the dual role of trusted advisor and honest broker to the Plan Sponsor and bargaining agents that represent members.

OPB works closely with the Government of Ontario to ensure that politicians and senior civil servants fully understand the issues that impact the Plan. We also conduct regular and ongoing discussions with bargaining agent groups – keeping them informed about the health of the Plan and emerging trends and issues.

In 2015, we also:

- increased our client education sessions and webinars by 45%, reaching 232% more clients than we did in 2014;
- delivered 173 presentations to Plan members across Ontario, providing them with information about the value of their pension, Plan provisions, and key decision points;
- held five retirement advisory workshops;
- participated in the Government of Ontario Chief Administrative Officer forum; and
- presented at the Annual General Meetings (AGMs) of bargaining agents.

We had almost 160,000 visits to OPB's public website in 2015, up 6.4% over the previous year. We also saw substantial growth in mobile traffic throughout 2015 – with nearly one in five visitors accessing opb.ca and our e-services websites via smartphone or tablet.

We launched our online portal for participating employers in 2015. This system will reduce processing times for key transactions and allow OPB to track key employer trends to identify areas where employers need the most support. We are pleased that employers submitted more than 1,500 transactions through the portal in its first two months of operation.

We know that protecting the long-term sustainability of the Plan requires constant nurturing of our stakeholder relationships. OPB will continue to do so, using all of the connection points at our disposal.

**Stakeholder relations**

| What we did | Why it matters |
|---|---|
| Continued to build a strong working relationship with the Plan Sponsor | The Plan Sponsor is responsible for major decisions governing the Plan. We believe a strong working relationship will earn us a place at the table during future discussions related to Plan design and funding. |

## Strategic and responsible financial management

OPB remains mindful of the financial pressures facing the Government of Ontario. We are committed to managing costs and offering value-added service at a cost-effective price.

Although we've expanded our range of member services in recent years – and added to the breadth, depth and sophistication of our investment program – our operating expense ratio remains among the lowest in the industry. We've accomplished this by:

- focusing on priorities and working smart;
- automating and redeploying resources where it makes sense to do so;
- negotiating prudent agreements with investment managers and suppliers;
- enhancing our abilities, through staffing and training, to perform more value-added services in-house rather than pay premiums to external service providers; and
- increasing our focus on digital delivery channels.

Our operating expenses for 2015 increased by 8.4% over 2014. This increase is related primarily to OPB's ongoing investment in the people and technology needed to support our strategy of generating superior risk-adjusted returns and maximizing the member experience.

We will continue to make prudent though potentially significant technology investments that are critical to OPB's security, stability and success. This includes focusing on the investment systems, technology, cybersecurity and talent we need to migrate more key investment and asset management services in-house and offer a superior member experience.

In 2016, we will focus efforts on gathering key information that will help guide our multi-year modernization process scheduled to start in 2017. For example, we anticipate replacing our aging pension administration system in the coming years. This will help further improve data security, support our progressive digital strategy and increase client service efficiency.

**Financial management**

| What we did | Why it matters |
|---|---|
| Continued to make cost constraint a priority | OPB is committed to managing costs. During 2015, we continued to enhance our ability to provide value-added services in-house, expanded our focus on digital service delivery, and made smart and prudent investments in both talent and technology. |

## Costs

At OPB, we are committed to the disciplined management of Plan-related costs. Our goal, in all cases, is to streamline our cost base – but to spend strategically where it is in the best interest of our members and other stakeholders to do so. For accounting purposes, Plan operating costs are broken down into two key categories:

- **Investment management costs**, comprising:
  - **Investment fees** (external) – This primarily includes fees paid to external fund managers, as well as transaction costs and custodial fees associated with managing and investing the Plan's assets. These costs are deducted from total investment income; and
  - **Investment operating expenses** (internal) – These are the costs associated with the operation of the investment portfolio, including costs related to our in-house activities, such as investment staff (front-, middle- and back-office), technology, control and reporting processes and investment research initiatives.
- **Pension administration expenses** – These are the costs associated with operating and administering the Plan, including costs related to providing client service, processing member transactions (retirements, terminations, etc.) and maintaining our pension administration system.

## Investment management costs

We experienced an increase in investment expenses (as a percentage of average net assets available for benefits) in 2015. The following factors have influenced our investment management costs in recent years:

- the Plan's growing asset base;
- increased exposure to higher-cost alternatives and specialty mandates;
- a reduced exposure to cheaper passive-index mandates;
- higher research costs;
- additional technology applications; and
- a building out of investment expertise.

While we operate with an eye toward cost containment, we continue to invest strategically in the talent, technology and processes needed to support our increasingly sophisticated investment program. By improving our in-house team, our ability to analyze investment data and risk, and our performance measurement processes, we can act quickly on new investment opportunities. This is especially crucial as we shift to more private markets assets – which can generate higher long-term returns but are more expensive to acquire and manage than public market equities and fixed income. We expect that the higher returns generated by our investment strategy will more than offset any increase in expenses.

Our investment expense ratio remains among the lowest in the industry. It stood at 0.44% (or 44 cents per $100 of average net assets available for benefits) at the end of 2015, consistent with 0.44% in 2014 (or 44 cents per $100 of average net assets available for benefits)[1]. The expense ratio compares total investment expenses – including investment operating expenses and investment fees – with average net assets available for benefits. Investment fees for 2015 totalled $79.4 million (or 35 cents per $100 of average net assets available for benefits), compared to $75.2 million (or 35 cents per $100 of average net assets available for benefits)[1] in 2014.

By partnering with larger institutional investors and other private sector investment partners, we have been able to maintain a low expense ratio through economies of scale. Our expectation is that the planned initiative to pool assets with WSIB (and, potentially, other entities in the future), will also position us for enhanced returns (net of expenses).

[1] The 2014 comparative figures have been restated, as they had been originally reported on the basis of end-of-year net assets available for benefits. For 2015, the methodology has been updated to reflect costs as a portion of average net assets available for benefits.

## Pension administration expenses

We are committed to meeting or exceeding the cost compliance requirements set out by legislation and through the Government of Ontario's corporate directives, and to providing value-added service at a cost-effective price.

The Plan's pension administration expenses were $24.3 million in 2015 (or 11 cents per $100 of average net assets available for benefits), compared to $23.6 million (or 11 cents per $100 of average net assets available for benefits) in 2014. We will continue to manage our costs by keeping overall staffing costs in check, deferring some non-critical strategic initiatives and continuing to negotiate competitive contracts with service providers.

Pension administration operating expenses
(in thousands of dollars)

## Contributions

Contribution rates for the PSPP are set by the *Public Service Pension Act*, 1990. They remain among the lowest rates for major pension plans in Canada.

Members currently contribute 6.4% of their salary below the Year's Maximum Pensionable Earnings (YMPE) and 9.5% of their salary above the YMPE. Employers contribute a matching amount. Contributions for members receiving Long Term Income Protection benefits are paid by their employers.

Ontario Provincial Police (OPP) officers are required to contribute additional amounts to fund the 50/30 unreduced early retirement provision and the enhanced earnings component of the benefit formula (average annual earnings based on highest 36 consecutive months for officers and highest 40 consecutive months for civilians). The contribution rates for OPP officers are 9.2% of salary up to the YMPE and 12.3% of salary above the YMPE. For civilians, the contribution rates are 6.775% of salary up to the YMPE and 9.875% of salary above the YMPE. These higher contribution rates are matched by the employer.

During 2015, contributions for all OPB members and employers totalled $732 million, up marginally from $719 million in 2014. This modest increase is attributable to ongoing salary restraint in the public sector.

## Pensions paid

Monthly pension payments for December 2015 totalled $87.7 million, up from $83.2 million in December 2014. Part of the increase is attributable to a 1.7% inflation protection adjustment (Escalation Factor) that was applied to pensions on January 1, 2015. The remainder is attributable to an increase in the average pension for new retired members.

## Executive compensation

OPB recognizes compensation as a key component in achieving its long-term strategies and organizational effectiveness. The compensation programs as they pertain to the senior executives are described in this section. OPB is an Ontario public sector agency, a distinction which is incorporated into its compensation philosophy. In addition, OPB is very aware that the Province is in an era of cost constraint. While OPB's executive compensation is benchmarked against Ontario's other public sector pension plan administrations, it does not exceed that of any of its peers.

Compensation for the President and CEO is approved by the Board. Compensation for the executives reporting directly to the CEO is approved by the Human Resources Committee of the Board. Incentives are performance-based.

A long-term incentive plan (LTIP) was introduced for key investment personnel only, in 2014. In 2015, this was expanded to include two additional key executives that support the Investments function. The LTIP uses a mix of performance metrics that include total fund returns against benchmark, client service and PSPP funded status and measures these over a four-year timeline. The use of these metrics supports the alignment of interests of senior investment staff with those of PSPP members. There is an upper limit of incentive payout, dependent upon position, ranging from 35% to 55% of base salary at the commencement of each performance period. A transitional provision in the LTIP places a ceiling on the amount that can be paid out in the first three years of the program. Commencing in 2014, the ceiling was set at 25% of the maximum otherwise payable, and increases by 25% in each of the subsequent three years.

Compensation of the listed executives includes base salary, incentives, insured benefits and retirement benefits. Compensation totals, excluding retirement benefits, paid to the President & CEO, and the other executives reporting directly to the CEO, are shown below.

### Compensation in 2015

| For the year ended December 31 | Year | Base Salary[1] | Short-Term Incentive[2] | Long-Term Incentive[3] | Taxable Benefits & Allowances[4] | Total |
|---|---|---|---|---|---|---|
| Mark J. Fuller, President & CEO | 2015 | $ 459,223 | $ 196,992 | $ n/a | $ 721 | $ 656,936 |
| | 2014 | 454,654 | 181,486 | n/a | 720 | 636,860 |
| Jill Pepall, Executive Vice-President & Chief Investment Officer | 2015 | 492,878 | 206,721 | 135,960 | 749 | 836,308 |
| | 2014 | 464,635 | 185,625 | 61,875 | 726 | 712,861 |
| Peter Shena, Executive Vice-President & Chief Pension Officer | 2015 | 316,793 | 110,749 | n/a | 534 | 428,076 |
| | 2014 | 319,360 | 106,077 | n/a | 544 | 425,981 |
| Valerie Adamo, Chief Technology Officer[5] | 2015 | 298,973 | 104,531 | n/a | 514 | 404,018 |
| | 2014 | 292,074 | 105,469 | n/a | 365 | 397,908 |

| For the year ended December 31 | Year | Base Salary[1] | Short-Term Incentive[2] | Long-Term Incentive[3] | Taxable Benefits & Allowances[4] | Total |
|---|---|---|---|---|---|---|
| R. Paul Edmonds, Chief Legal & Governance Officer | 2015 | 316,793 | 108,266 | n/a | 534 | 425,593 |
| | 2014 | 319,360 | 103,666 | n/a | 544 | 423,570 |
| Gayle Fisher, Chief Administrative Officer[6] | 2015 | 297,823 | 104,531 | n/a | 445 | 402,799 |
| Michel J. Paradis, Chief Financial Officer[7] | 2015 | 323,888 | 113,242 | 65,000 | 546 | 502,676 |
| | 2014 | 165,681 | 57,129 | n/a | 206 | 223,016 |

[1] Base salary is based upon amounts paid during the year. In 2015, there were 26 bi-weekly pays. In 2014, there were 27 bi-weekly pays.

[2] Short-term incentive earned is paid in March of the following year.

[3] LTIP payments are only applicable to the Chief Investment Officer and Chief Financial Officer on this list. These are paid in March of the year following the completion of the measurement period. The figures shown are the amount vested and expected to be paid in the subsequent year.

[4] Includes life insurance. There are no car allowances or other perquisites.

[5] Ms. Adamo joined on January 13, 2014. Amounts shown reflect compensation from that date.

[6] Ms. Fisher joined on January 5, 2015. Amounts shown reflect compensation from that date.

[7] Mr. Paradis joined on July 1, 2014. Amounts shown reflect compensation from that date. Mr. Paradis became eligible for LTIP in 2015.

The above-noted individuals are entitled to pension benefits on their base salary from both the PSPP and the Public Service Supplementary Benefits Account (the PSSBA). Having the executives as members of the same pension plans as the clients that they serve builds strong alignment.

The listed executives participate in a Supplementary Executive Retirement Plan (SERP) that provides retirement benefits equal to 2% of the best five-year average annual award of short-term incentive plan (STIP) compensation for a year of service with OPB. There is no service accrued in the SERP for years other than during their employment time with OPB. The maximum inflation protection adjustment to the SERP benefit in any year is limited to 2.5%. All the other provisions of the SERP mirror the provisions of the PSPP. The SERP is an unregistered arrangement that is non-contributory and not funded.

In accordance with Ontario government directives, OPB executives do not receive any perquisites, such as automobile entitlements or allowances, club memberships, personal use equipment or personal services.

## Sound risk management

At OPB, we understand that innovation can carry a degree of risk. That's why sound risk management is embedded in everything we do. Defined benefit pension plans like the PSPP face a wide range of risks, including operational risk, investment risk, funding risk and liquidity risk, to name a few. To manage that risk, OPB has implemented a comprehensive ERM program.

ERM provides an integrated approach to risk management. Specifically, it prescribes a formal framework for identifying, reporting and monitoring risks that could adversely affect the Plan. It also helps identify mitigation strategies. As part of our program, we have:

- strengthened our governance over risk management and compliance to enhance oversight;
- made it our practice to review risk and risk mitigation strategies on a quarterly basis to ensure we have the people, policies and procedures needed to protect the Plan;

- integrated risk management into our strategic planning process;
- put in place a comprehensive risk-based internal audit process; and
- started reviewing actuarial valuation assumptions on an annual basis to ensure they continue to reflect Plan experience.

In 2015, we revamped our ERM reporting process to give our Board of Directors and management team more accurate data and actionable risk mitigation strategies. This enables OPB to better identify risks and implement the strategies needed to manage those risks quickly and effectively.

## Operational risk

OPB is focused on continuous improvement as part of our operational risk mitigation strategy. In 2015, OPB moved to reduce operational risk by:

- identifying the need to hire an information security officer in 2016 to assist with operational risk monitoring and reduction; and
- preparing to replace our aging pension administration systems in the coming years. This important technology upgrade will help us to improve client and stakeholder outreach and support our progressive digital strategy, while improving the security of key data. OPB will need to invest in replacing our aging pension administration systems in the coming years.

## Investment risk

To position the Plan to meet its investment objectives in an increasingly challenging environment, OPB has moved from balanced mandates to specialty mandates, allocated more funds to private markets and shifted a growing number of investment decisions in-house. These changes increase our ability to adapt quickly to changing markets and pursue opportunities that can offer better long-term returns. While these key initiatives enable OPB to manage market and currency risk more effectively, they add a level of complexity that demands an increased focus on investment risk management, compliance and monitoring.

Our risk-managed approach to investing integrates risk monitoring and management into our investment processes and day-to-day activities. We ensure our investment decisions are supported by comprehensive risk analysis. And we improve the return/risk relationship of our investment decisions by taking only those risks we believe will be duly rewarded.

In 2015, we introduced a number of key tactics designed specifically to help us manage required risk and mitigate unrewarded risk. Specifically, we:

- developed in-house risk and attribution models that allow us to forecast investment risk more effectively and integrate risk management into the investment decision-making process;
- advanced the planned asset pooling initiative with WSIB, which, once fully operational, will offer OPB the opportunity to further enhance our research and risk management capabilities through access to more sophisticated information technology applications; and
- retained investment managers that have a focus on capital preservation and a track record of managing effectively through volatile markets.

**Risk management**

| What we did | Why it matters |
|---|---|
| Strengthened our ERM program | ERM forms the framework for risk management across the organization. In 2015, we revamped our ERM reporting process to give our Board of Directors and management team the information needed to more quickly identify risk and implement strategies to effectively manage those risks. |
| Adopted a new risk mitigation model for delegating authority within OPB | The model helped streamline the approvals process and strengthen our internal system of checks and balances. |
| Developed, and currently implementing, a series of risk appetite statements and a risk scale | These tools enable OPB to specify and more objectively measure acceptable risk levels for specific business priorities across the organization. |
| Used our TAA strategy to effectively deploy capital in a risk-controlled fashion | The TAA strategy enables us to effectively and efficiently adjust the percentage of assets held in various investment portfolios so that we can take advantage of market opportunities to generate value-added returns. It is also used to preserve and protect capital at major inflection points in the economic cycle. |
| Developed in-house investment risk and attribution models | These tools address the need to forecast investment risk more effectively and integrate risk management into the investment decision-making process. |
| Continued to advance the planned asset pooling initiative with WSIB | This initiative will provide access to more sophisticated information technology to further enhance OPB's ability to quickly identify, analyze and manage risk. |
| Identified the need to hire a dedicated information security officer in 2016 | This individual will ensure information and cybersecurity best practices are at the core of all of our information and technology decision making, and will oversee the continued enhancement of our information security capabilities in responding to the ever changing demands for cybersecurity responsiveness. |

## Five-year review

| (in millions of dollars) | **2015** | 2014 | 2013 | 2012 | 2011 | |
|---|---|---|---|---|---|---|
| **Opening net assets** | **$22,231** | $ 20,915 | $ 18,991 | $ 17,270 | $ 17,376 | |
| Investment income | **1,224** | 1,642 | 2,244 | 1,964 | 19 | |
| Contributions | **731** | 719 | 709 | 714 | 715 | |
| Transfers from other plans | **111** | 81 | 91 | 104 | 132 | |
| | **2,066** | 2,442 | 3,044 | 2,782 | 866 | |
| Pension payments | **1,038** | 989 | 959 | 918 | 869 | |
| Terminations | **137** | 94 | 121 | 105 | 68 | |
| Operating expenses | **47** | 43 | 40 | 38 | 35 | |
| | **1,222** | 1,126 | 1,120 | 1,061 | 972 | |
| **Closing net assets** | **23,075** | 22,231 | 20,915 | 18,991 | 17,270 | |
| | | | | | | Cumulative Since Inception |
| Annual rate of return | **6.1%** | 8.4% | 12.5% | 11.9% | 0.4% | 8.5% |

# Actuaries' Opinion to the Directors of the Ontario Pension Board

Aon Hewitt was retained by the Ontario Pension Board ("OPB") to prepare the following actuarial valuations of the Public Service Pension Plan ("PSPP"):

- An actuarial valuation as at December 31, 2014 on a funding basis, as described in Note 6 of these financial statements, prepared in accordance with the *Public Service Pension Act* and applicable pension legislation.
- An actuarial valuation as at December 31, 2015 for purposes of these financial statements, prepared in accordance with the Chartered Professional Accountants of Canada Handbook, Section 4600.

The actuarial valuation of the PSPP as at December 31, 2014 on a funding basis was based on membership data provided by OPB as at December 31, 2014.

Using the same data as provided by OPB for the funding valuation of the PSPP, we have prepared a valuation of the liabilities as of December 31, 2014 on the basis of the accounting methodology required by the Chartered Professional Accountants of Canada Handbook, Section 4600, as disclosed in Note 6, and extrapolated the liabilities to December 31, 2015. The valuation as at December 31, 2015 was based on assumptions that reflect OPB's best estimates of future events such as future rates of inflation, future retirement rates and future rates of return on the pension fund. The amounts are set out in the statement of changes in pension obligations.

We hereby certify that, in our opinion:

- The data provided to us by OPB as of December 31, 2014 are sufficient and reliable;
- The actuarial assumptions used are appropriate for the purposes of each valuation; emerging experience differing from the assumptions will result in gains or losses which will be revealed in future valuations; and
- The methods used are appropriate for purposes of each valuation and are consistent with the applicable regulatory requirements.

Our valuations have been prepared, and our opinions given, in accordance with accepted actuarial practice.

AON HEWITT

**Allan H. Shapira**
Fellow of the Canadian Institute of Actuaries
March 2, 2016

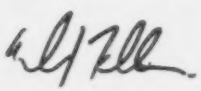
**Andrew Hamilton**
Fellow of the Canadian Institute of Actuaries

# Management's Responsibility for Financial Reporting

The financial statements of the Ontario Pension Board ("OPB") have been prepared by management, which is responsible for the integrity and fairness of the data presented. The accounting policies followed in the preparation of these financial statements are in accordance with Canadian accounting standards for pension plans. Of necessity, many amounts in the financial statements must be based on the best estimates and judgment of management with appropriate consideration as to materiality. Financial information presented throughout this annual report is consistent with the financial statements.

Systems of internal control and supporting procedures are maintained to provide assurance that transactions are authorized, assets are safeguarded against unauthorized use or disposition, and proper records are maintained. The system includes careful hiring and training of staff, the establishment of an organizational structure that provides for a well-defined division of responsibilities and the communication of policies and guidelines of business conduct throughout OPB.

The Board of Directors (the "Board") is ultimately responsible for the financial statements of OPB. OPB's Audit Committee assists in this responsibility by reviewing the financial statements in detail with management and the external auditors before such statements are recommended to the Board for approval. The Audit Committee meets regularly with management and the external auditors to review the scope and timing of audits, to review their findings and suggestions for improvements in internal control, and to satisfy themselves that their responsibilities and those of management have been properly discharged.



**Mark J. Fuller**
President & CEO
March 2, 2016

**Michel J. Paradis**
Chief Financial Officer

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# Independent Auditors' Report to the Directors of the Ontario Pension Board

We have audited the accompanying financial statements of the Ontario Pension Board, which comprise the statement of financial position as at December 31, 2015, and the statements of changes in net assets available for benefits and changes in pension obligations for the year then ended, and a summary of significant accounting policies and other explanatory information.

## Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditors' responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Ontario Pension Board as at December 31, 2015, and the changes in its net assets available for benefits and changes in its pension obligations for the year then ended in accordance with Canadian accounting standards for pension plans.

Ernst & Young LLP

Toronto, Canada
March 2, 2016

Ernst & Young, LLP
Licensed Public Accountants
Chartered Professional Accountants

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# Statement of Financial Position

| As at December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| **Assets** | | |
| Investments (Note 4) | **$ 23,151,396** | $ 22,253,391 |
| Investment-related assets (Note 4) | **84,899** | 65,977 |
| Contributions receivable | | |
| Members | **21,390** | 17,985 |
| Employers | **43,803** | 26,668 |
| Capital assets (Note 5) | **1,962** | 2,331 |
| **Total assets** | **23,303,450** | 22,366,352 |
| **Liabilities** | | |
| Investment-related liabilities (Note 4) | **190,383** | 99,991 |
| Accounts payable and accrued charges | **36,852** | 35,543 |
| Contributions payable | **1,020** | – |
| **Total liabilities** | **228,255** | 135,534 |
| **Net assets available for benefits** | **23,075,195** | 22,230,818 |
| Pension obligations (Note 6) | **23,509,215** | 22,562,386 |
| **Deficit** (Note 7) | **$ (434,020)** | $ (331,568) |

See accompanying notes

On behalf of the Board:

**M. Vincenza Sera**
Chair

**Patti Croft**
Chair, Audit Committee

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# Statement of Changes in Net Assets Available for Benefits

| For the year ended December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| **Investment operations** | | |
| Net investment income (Note 8) | **$ 1,223,981** | $ 1,641,904 |
| Operating expenses – investment operations (Note 10) | **(22,563)** | (19,604) |
| **Net investment operations** | **1,201,418** | 1,622,300 |
| **Pension operations** | | |
| Contributions (Note 9) | | |
| Members | **318,315** | 310,338 |
| Employers and sponsor | **413,289** | 408,753 |
| Transfer of service from other plans | **111,431** | 81,382 |
| Retirement pension payments | **(1,038,418)** | (989,261) |
| Termination and other benefits | **(137,349)** | (94,113) |
| Operating expenses – pension operations (Note 10) | **(24,309)** | (23,638) |
| **Net pension operations** | **(357,041)** | (306,539) |
| **Net increase in net assets for the year** | **844,377** | 1,315,761 |
| **Net assets, at beginning of year** | **22,230,818** | 20,915,057 |
| **Net assets, at end of year** | **$ 23,075,195** | $ 22,230,818 |

See accompanying notes

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# Statement of Changes in Pension Obligations

| For the year ended December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| **Pension obligations, at beginning of year** | **$ 22,562,386** | $ 21,894,206 |
| **Increase in pension obligations** | | |
| Interest on pension obligations | **1,329,768** | 1,292,110 |
| Benefits accrued | | |
| Service accrual | **604,304** | 614,031 |
| Transfer of service from other plans | **111,431** | 81,382 |
| Past service buybacks | **33,357** | 31,838 |
| Experience losses | **97,914** | 3,959 |
| **Total increase** | **2,176,774** | 2,023,320 |
| **Decrease in pension obligations** | | |
| Benefits paid | **1,175,767** | 1,083,374 |
| Changes in actuarial assumptions (Note 6) | **54,178** | 271,766 |
| **Total decrease** | **1,229,945** | 1,355,140 |
| **Net increase in pension obligations** | **946,829** | 668,180 |
| **Pension obligations, at end of year** | **$ 23,509,215** | $ 22,562,386 |

See accompanying notes

# Notes to the Financial Statements

## **Note 1** Public Service Pension Act

Effective January 1, 1990, the Province of Ontario (the "Province") enacted the *Public Service Pension Act, 1990* (*"PSPAct"*) to continue the pension plan for the employees of the Province and certain of its agencies. The terms of the Public Service Pension Plan ("PSPP" or the "Plan") are stated in Schedule 1 to the *PSPAct*. Ontario Pension Board ("OPB") is the administrator of the PSPP.

## **Note 2** Description of PSPP

The following is a brief description of the PSPP. For more complete information, reference should be made to the *PSPAct*.

### a) General

The PSPP is a contributory defined benefit pension plan. Membership is mandatory for persons or classes of persons who satisfy the eligibility requirements provided in the *PSPAct*. Persons who are entitled, but not required, to join the Plan, including Deputy Ministers and contract employees, may elect to participate. Under the PSPP, both the members and the employers make contributions. The PSPP is registered with the Financial Services Commission of Ontario and the Canada Revenue Agency (Registration Number 0208777) as a registered pension plan not subject to income taxes.

### b) Contributions

The PSPP is integrated with the Canada Pension Plan ("CPP"). Contribution rates are 6.4% of the salary on which contributions are made up to the Year's Maximum Pensionable Earnings ("YMPE") and 9.5% of the salary above the YMPE. Employers contribute matching amounts.

Ontario Provincial Police ("OPP") officers are required to contribute an additional 2% of salary, which is matched by the employer. These additional contributions are used to fund an unreduced early retirement provision available to OPP officers meeting a minimum 50 years of age and 30 years of service. The contribution rates for OPP officers, inclusive of the additional 2% of salary, are 9.2% of the salary on which contributions are made up to the YMPE, and 12.3% of the salary above the YMPE. The contribution rates for OPP civilians are 6.775% of the salary on which contributions are made up to the YMPE, and 9.875% of the salary above the YMPE.

Contributions from members and employers are remitted to OPB. The portion of these contributions that exceeds *Income Tax Act (Canada)* limits is transferred to the Province's Public Service Supplementary Benefits Account ("PSSBA").

### c) Pensions

A pension is payable at age 65 based on the number of years of credit in the PSPP multiplied by 2% of the average salary during the best consecutive 60-month period, less an offset for integration with the CPP at age 65. An unreduced pension can be received before age 65 if the member's age and years of credit total 90 ("Factor 90") or when the member reaches age 60 and has 20 or more years of credit.

OPP officers are eligible for a pension payable based on the average salary during the best 36-month period. Likewise, OPP Civilians are eligible for a pension payable based on the average salary during the best 48-month period. In addition, OPP officers are eligible for an unreduced pension after attaining age 50 with 30 years of credit.

### d) Death benefits

Upon the death of a member or pensioner, benefits may be payable to a surviving eligible spouse, eligible children, a designated beneficiary or the member's or retired member's estate.

### e) Disability pensions

Based on meeting all eligibility criteria, a disability pension may be available to members with a minimum of 10 years of credit in the PSPP. The amount of the disability pension is dependent on years of credit and average salary.

### f) Termination payments

Members terminating employment before age 55 who are eligible for a deferred pension may be entitled to transfer the commuted value of the pension to a locked-in registered retirement savings arrangement, to transfer to another pension plan, or to purchase a life annuity.

### g) Escalation of benefits

Current pensions and deferred pension benefits are increased for inflation based on the Consumer Price Index to a maximum of 8% in any one year. Any inflation above 8% in any one year is applied to increase the pension in subsequent years when the adjustment is less than 8%.

## **Note 3** Summary of significant accounting policies

### Basis of presentation

The financial statements are prepared in accordance with Canadian accounting standards for pension plans and present the position of the PSPP as a separate entity independent of the employers and Plan members.

In accordance with Section 4600, Pension Plans, of the Chartered Professional Accountants of Canada ("CPA Canada") Handbook, Canadian accounting standards for private enterprises in Part II of the CPA Canada Handbook have been chosen for accounting policies that do not relate to the investment portfolio or pension obligations to the extent that those standards do not conflict with the requirements of Section 4600.

## a) Use of estimates

The preparation of financial statements in conformity with Canadian accounting standards for pension plans requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts on the statements of changes in net assets available for benefits and changes in pension obligations during the reporting period. Actual results could differ from those estimates. The most significant estimates affecting the financial statements relate to the determination of the pension obligations and the fair values of the Plan's Level 3 investments.

## b) Investments and Related Liabilities

Investments are stated at fair value, including accrued income. Fair value is the amount of consideration that would be agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act.

Fair value of financial instruments is determined as follows:

(i) Short-term investments are recorded at cost, which, together with accrued interest or discount earned, approximates fair value.

(ii) Bonds and OPB Finance Trust debentures are valued at quoted market prices, where available. For those debt instruments for which quoted market prices are not available, estimated values are calculated using discounted cash flows based on current market yields and comparable securities, as appropriate.

(iii) Equities are valued at quoted market prices at closing where available. Where quoted market prices are not available, other industry pricing conventions that are used by market participants such as ask price are used to estimate the values.

(iv) Pooled fund values for publicly traded securities are supplied by the fund managers based upon fair value quotations.

(v) Derivative financial instruments such as foreign exchange and bond forwards, equity futures contracts and options are recorded at fair value using year-end market prices where available. For those instruments for which market prices are not available, estimated fair values are determined using appropriate valuation models based on industry-recognized methodologies.

(vi) Real estate, consisting primarily of income-producing properties, and participating mortgages are valued at estimated fair value determined annually by independent appraisals. The cost of properties acquired during the year may be used as an approximation of their fair value where there has been no significant change in fair value. Non-operating real estate investments such as vacant land and real estate assets under construction are carried at their latest independently appraised values, plus any additional development costs.

(vii) Private market and alternative investments, which include infrastructure, private equity, private debt and real estate funds, are valued using the most recently available financial information provided by the fund managers and adjusted for any transactions during the interim period up to the reporting date of these financial statements.

(viii) Mortgages and private debt are valued using discounted future cash flows based on year-end market yields and comparable securities, as appropriate.

Investment transactions are recorded on trade date. Interest is recognized on an accrual basis when earned. Dividend income is recognized on the ex-dividend date. Distributions from investments in pooled funds are recognized when declared by the fund managers. Since real estate is valued on a fair value basis, depreciation and amortization are not recorded. Interest on participating mortgages is accrued at the rate stated in the instrument, and any participation income is recognized on an accrual basis. Transaction costs are expensed as incurred.

Net investment income (loss) also includes fair value changes. Fair value changes represent both realized and unrealized gains and losses. Realized gains or losses are recognized when OPB has transferred to the purchaser the significant risks and rewards of ownership of the investment, the purchaser has made a substantial commitment demonstrating its intent to honour its obligation, and the collection of any additional consideration is reasonably assured.

### c) Pension obligations

Pension obligations are determined based on an actuarial valuation prepared by an independent firm of actuaries based on an actuarial valuation report prepared for funding purposes. This valuation uses the projected benefit cost method pro-rated on service and management's best estimate of various economic and non-economic assumptions.

### d) Contributions

Contributions due to the PSPP at year-end are recorded as receivable. Transfers into the Plan and purchases of prior service are recorded after cash is received and the transfer or purchase transaction is completed.

### e) Capital assets

Capital assets are carried at cost less accumulated depreciation. Depreciation is provided on a straight-line basis over the estimated useful lives of the capital assets as follows:

Computer equipment: 3 years

Leasehold improvements: Remaining term of lease

Furniture and fixtures: 10 years

### f) Foreign currency translation

Foreign currency transactions are translated into Canadian dollars at the rates of exchange prevailing at the dates of the transactions. The fair values of investments and cash balances denominated in foreign currencies are translated at the rates in effect at year-end.

## **Note 4** Investments

Investments before allocating the effect of derivative contracts consist of the following:

### Investments

| As at December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| **Cash and short-term investments** | | |
| Canada | **$ 489,584** | $ 744,777 |
| Foreign | **179,568** | 178,848 |
| | **669,152** | 923,625 |
| **Bonds and private debt** | | |
| Canada | **6,317,419** | 5,527,631 |
| Foreign | **620,595** | 778,617 |
| | **6,938,014** | 6,306,248 |
| **Equities** | | |
| Canada | **1,813,019** | 2,117,745 |
| Foreign | **7,753,984** | 8,365,759 |
| | **9,567,003** | 10,483,504 |
| **Real estate** (net of financing, Note 4(i)) | **4,247,082** | 3,425,640 |
| **Infrastructure** | **1,167,558** | 754,609 |
| **Private equity** | **562,587** | 359,765 |
| **Total investments** | **23,151,396** | 22,253,391 |
| **Investment-related assets** | | |
| Pending trades | **10,322** | 17,936 |
| Derivatives receivable | **74,577** | 48,041 |
| **Total investment-related assets** | **84,899** | 65,977 |
| **Investment-related liabilities** | | |
| **Pending trades** | **10,978** | 29,278 |
| **Derivatives payable** | **179,405** | 70,713 |
| **Total investment-related liabilities** | **190,383** | 99,991 |
| **Total net investments** | **$ 23,045,912** | $ 22,219,377 |

## a) Investment asset mix

The Plan's actual and target investment asset mix is summarized below as at December 31:

**Asset mix**

| | 2015 | | 2014 | | |
|---|---|---|---|---|---|
| | Asset Allocation % | | Asset Allocation % | | |
| | **Total Plan** | **Target** | Total Plan | Target | SIP&P Range |
| **Asset categories** | | | | | |
| Cash and equivalents[1] | **(0.3%)** | **3.0%** | 0.3% | 3.0% | |
| Fixed income | **27.0%** | **25.0%** | 27.5% | 31.0% | |
| Long bonds | **1.8%** | **3.5%** | n/a | n/a | |
| Real return bonds | **0.3%** | **1.0%** | 0.0% | 0.0% | |
| **Fixed income** | **28.8%** | | 27.8% | | 10%–45% |
| Canadian equities | **9.8%** | **10.5%** | 10.3% | 10.5% | |
| Foreign developed equities | **20.5%** | **19.0%** | 24.1% | 20.0% | |
| Emerging equities | **15.0%** | **14.5%** | 17.3% | 15.0% | |
| Private equity | **2.4%** | **2.0%** | 1.8% | 1.0% | |
| **Equity** | **47.7%** | | 53.5% | | 15%–75% |
| Real estate | **18.5%** | **17.5%** | 15.3% | 16.5% | |
| Infrastructure | **5.0%** | **4.0%** | 3.4% | 3.0% | |
| **Real assets** | **23.5%** | | 18.7% | | 20%–45% |
| **Total investments** | **100.0%** | **100.0%** | 100.0% | 100.0% | |

[1] The asset categories in this Asset Mix table are adjusted to reflect the market exposures after allocating derivatives positions to the asset classes to which they relate, offset by an adjustment to cash and equivalents. This reallocation can result in a negative cash and equivalents position when the synthetic position created using derivative contracts is additive to existing positions. As at December 31, 2015, an overall synthetic long position in equity futures and positions in forward foreign exchange contracts reduced the cash and equivalents position by $0.6 billion and $0.1 billion, respectively, resulting in a negative synthetic cash position of $0.1 billion.

The Plan approved an updated Strategic Asset Allocation ("SAA") on September 19, 2014, which is summarized in the Statement of Investment Policies & Procedures ("SIP&P") most recently updated and approved on November 4, 2015. A transition plan to achieve the updated SAA was also approved on September 19, 2014. The transition plan is being phased in over a five-year period. During this period, the asset mix of the Plan's investments may not fall within the SIP&P ranges. However, the ultimate goal of the Plan is to achieve the specified SIP&P ranges of each asset category by the end of the phase-in period.

For purposes of assessing the investment asset mix of the Plan for SIP&P purposes, the investment asset categories reflect the impact of derivative contracts, and investment-related receivables and liabilities. As at December 31, 2015, the asset mix of the Plan's investments was within the acceptable ranges as specified in the SIP&P.

## b) Financial instruments risk

The Plan is subject to financial risks as a result of its investing activities that could impact its cash flows, income, and assets available to meet benefit obligations. These risks include market risk (including interest rate risk, foreign currency risk and other price risk), credit risk and liquidity risk. OPB manages these risks in accordance with its SIP&P, which prescribes the asset mix policy, diversification requirements, performance expectations, limits on individual investments, valuation standards, and guidelines for the management of the Plan.

**Market risk** – Market risk is the risk that the fair value or future cash flows of an investment will fluctuate because of changes in market factors. Market risk comprises the following:

**(i) Interest rate risk** – Interest rate risk refers to the effect on the fair value of the Plan's assets and liabilities due to fluctuations in market interest rates. The value of the Plan's investments is affected by changes in nominal and real interest rates. Pension liabilities are exposed to fluctuations in long-term interest rates and inflation. The Plan has established an asset mix policy that balances interest rate-sensitive investments with other investments. OPB's fixed income investments have the most significant exposure to interest rate risk. Duration and weighting for the fixed income portfolio are actively managed. Modified duration is a measure of the sensitivity of the price of a fixed income instrument to a change in interest rates. Given the Plan's modified duration of 7.3 years at December 31, 2015 (2014 – 6.4 years), a parallel shift in the yield curve of +/-1% would result in an approximate impact of $514 million (2014 – $404 million) on net investments with all other variables held constant. In practice, actual results may differ materially from this sensitivity analysis. See the schedule of fixed income maturities for further information.

**(ii) Foreign currency risk** – Foreign currency exposure arises from the Plan holding foreign currency denominated investments and entering into contracts that provide exposure to currencies other than the Canadian dollar. Fluctuations in the value of the Canadian dollar against these foreign currencies can have an impact on the fair value of investments. In addition to passively hedging a portion of its foreign currency exposure, the Plan also has an active currency hedging strategy in place through the use of foreign exchange forward contracts, which are accounted for at fair value. The total currency exposure, the impact of foreign exchange forward contracts and the net currency exposure are as follows:

**Foreign currency exposure in 2015**

| As at December 31, 2015 (in thousands of dollars) | Gross Exposure | Foreign Exchange Contracts Receivable | Foreign Exchange Contracts Payable | Net Exposure |
|---|---|---|---|---|
| U.S. Dollar | $ 4,938,316 | $ 1,077,956 | $ (3,209,621) | $ 2,806,651 |
| Hong Kong Dollar | 569,550 | 1,220 | (187) | 570,583 |
| Indian Rupee | 408,856 | 6,044 | – | 414,900 |
| Chinese Renminbi | 356,932 | – | – | 356,932 |
| Pound Sterling | 446,489 | 349,787 | (1,147,302) | (351,026) |
| Japanese Yen | 130,731 | 245,080 | (90,069) | 285,742 |
| South Korean Won | 283,070 | – | – | 283,070 |
| Other | 2,130,090 | 634,644 | (1,125,678) | 1,639,056 |
| Total foreign | 9,264,034 | 2,314,731 | (5,572,857) | 6,005,908 |
| Canadian Dollar | 13,876,812 | 5,233,197 | (2,070,005) | 17,040,004 |
| | $ 23,140,846 | $ 7,547,928 | $ (7,642,862) | $ 23,045,912 |

**Foreign currency exposure in 2014**

| As at December 31, 2014 (in thousands of dollars) | Gross Exposure | Foreign Exchange Contracts Receivable | Foreign Exchange Contracts Payable | Net Exposure |
|---|---|---|---|---|
| U.S. Dollar | $ 4,881,526 | $ 279,731 | $ (3,179,966) | $ 1,981,291 |
| Hong Kong Dollar | 550,818 | 1,902 | (579) | 552,141 |
| Indian Rupee | 388,158 | 8,609 | (4,113) | 392,654 |
| South Korean Won | 288,546 | 540 | – | 289,086 |
| New Taiwan Dollar | 245,620 | 103 | – | 245,723 |
| Chinese Renminbi | 243,272 | – | – | 243,272 |
| Brazilian Real | 254,718 | 2,906 | (15,770) | 241,854 |
| Other | 2,783,144 | 194,162 | (1,802,743) | 1,174,563 |
| Total foreign | 9,635,802 | 487,953 | (5,003,171) | 5,120,584 |
| Canadian Dollar | 12,634,486 | 4,596,849 | (132,542) | 17,098,793 |
| | $ 22,270,288 | $ 5,084,802 | $ (5,135,713) | $ 22,219,377 |

The impact of a 5% absolute change in foreign exchange rates compared to the Canadian dollar, holding all other variables constant, is 5% of the net exposure of the impacted currency, as follows:

**Exchange rate sensitivity**

| | | Change in Net Assets Available for Benefits as of | |
|---|---|---|---|
| | Change in Exchange Rates | **December 31, 2015 (in thousands of dollars)** | December 31, 2014 (in thousands of dollars) |
| U.S. Dollar | +/- 5% | **+/- $ 140,333** | +/- $99,065 |
| Hong Kong Dollar | +/- 5% | **+/- 28,529** | +/- 27,607 |
| Indian Rupee | +/- 5% | **+/- 20,745** | +/- 19,633 |
| Chinese Renminbi | +/- 5% | **+/-17,847** | +/- 12,164 |
| Pound Sterling | +/- 5% | **+/-(17,551)** | +/- (7,300) |
| Japanese Yen | +/- 5% | **+/-14,287** | +/- 5,159 |
| South Korean Won | +/- 5% | **+/- 14,154** | +/- 14,454 |
| Other | +/- 5% | **+/- 81,953** | +/- 85,248 |
| Total | +/- 5% | **+/- $ 300,297** | +/- $ 256,030 |

**(iii) Other price risk** – Other price risk is the risk that the fair value of an investment will fluctuate because of changes in market prices other than those arising from foreign currency or interest rate risk, whether those changes are caused by factors specific to the individual investment or factors affecting all securities traded in the market. An absolute change in the fair value of OPB's investments which are exposed to other price risk will have a direct proportional impact on the fair value of the investments. OPB's investments in equities have the most significant exposure to other price risk. The impact of a 10% absolute change in the price of an investment, holding all other variables constant, is 10% of the net exposure of the impacted investment, as follows:

**Price risk**

| | | | Change in Net Assets as of | |
|---|---|---|---|---|
| Equities | Stock Market Benchmark | Change in Price Index | **December 31, 2015 (in millions of dollars)** | December 31, 2014 (in millions of dollars) |
| Canadian | S&P/TSX Composite Index | +/- 10% | **+/- $ 224.9** | +/- $ 229.3 |
| Foreign | MSCI World (C$) | +/- 10% | **+/- 472.0** | +/- 534.5 |
| Emerging | MSCI Emerging Equity Index (C$) | +/- 10% | **+/- 347.1** | +/- 385.9 |
| | | | **+/- $1,044.0** | +/- $ 1,149.7 |

The sensitivity analysis is performed using the investment asset mix weights summarized in Note 4(a).

**Credit risk** – The Plan is exposed to the risk of loss through over-the-counter ("OTC") derivative transactions, arising from a default or insolvency of a counterparty. This risk is significantly mitigated by the fact that for any counterparties where the Plan transacts in OTC derivatives of greater than one year in duration, an International Swaps and Derivatives Association ("ISDA") master agreement must be in place accompanied by a Credit Support Annex ("CSA"), which forms part of the ISDA. Under these agreements, collateral is exchanged with counterparties on a daily basis to manage the credit risk arising from any existing OTC derivative contracts with that counterparty. In addition, under the ISDA master agreement

for OTC derivatives, the Plan has the right to settle obligations on a net basis in the event of default, insolvency, bankruptcy or other early termination.

The Plan assumes credit risk exposure through bonds and private debt investments. As at December 31, 2015, the Plan's greatest credit exposure to a securities issuer is with the Government of Canada in the form of interest-bearing securities for $983 million (2014 – with the Province of Ontario for $740 million). The credit ratings of the Plan's fixed income and bond investments are as follows:

**Credit Rating as of December 31, 2015**

(in thousands of dollars)

| AAA | AA | A | BBB | BB | B | CCC | Not Rated | Total |
|---|---|---|---|---|---|---|---|---|
| **$1,826,884** | **$2,056,754** | **$1,085,702** | **$685,353** | **$364,499** | **$181,828** | **$8,712** | **$728,282** | **$6,938,014** |

**Credit Rating as of December 31, 2014**

(in thousands of dollars)

| AAA | AA | A | BBB | BB | B | CCC | Not Rated | Total |
|---|---|---|---|---|---|---|---|---|
| $1,289,411 | $1,918,559 | $1,004,203 | $599,894 | $536,336 | $216,066 | $15,693 | $726,086 | $6,306,248 |

The majority of the "not rated" classification in the table above is comprised of fixed income pooled fund and private debt investments.

**Liquidity risk** – Liquidity risk is the risk that the Plan has insufficient cash flows to meet its pension obligations and operating expenses as they become due. The more typical cash requirements of the Plan are in the form of monthly retirement benefit payments as well as periodic termination and other benefit payments and expenses. The Plan also has financial liabilities in the form of derivatives which all mature within one year. The cash requirements and the fulfillment of any financial liabilities are typically met through cash sources such as investment income, proceeds from the sales of investments, and member and employer contributions. The majority of the Plan's assets are also invested in securities that are traded in active markets and can be divested on a timely basis. The largest sources of cash during the year were the member, employer and sponsor contributions. The maturities of the Plan's fixed income and bond investments are as follows:

**Fixed Income Maturities as of December 31, 2015**

(in thousands of dollars)

| < 1 year | ≥ 1–5 years | ≥ 5–10 years | ≥ 10–20 years | ≥ 20 years | Funds | Total |
|---|---|---|---|---|---|---|
| **$562,336** | **$1,819,378** | **$1,638,002** | **$1,096,245** | **$1,609,876** | **$212,777** | **$6,938,014** |

**Fixed Income Maturities as of December 31, 2014**

(in thousands of dollars)

| < 1 year | ≥ 1–5 years | ≥ 5–10 years | ≥ 10–20 years | ≥ 20 years | Funds | Total |
|---|---|---|---|---|---|---|
| $497,490 | $1,675,177 | $1,812,171 | $986,996 | $1,160,483 | $173,931 | $6,306,248 |

## c) Cash and short-term investments

| As at December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| Canada | | |
| Cash | $ 46,569 | $ 75,655 |
| Short-term notes and treasury funds | 426,095 | 652,960 |
| Term deposits | 16,550 | 15,500 |
| Accrued interest | 370 | 662 |
| | $ 489,584 | $ 744,777 |
| Foreign | | |
| Cash | $ 162,247 | $ 133,994 |
| Short-term notes and treasury funds | 17,319 | 44,844 |
| Accrued interest | 2 | 10 |
| | $ 179,568 | $ 178,848 |

## d) Fixed income and equity investments

Included in the bonds and private debt Canadian totals are $41 million (2014 – nil) related to pooled funds. Included in foreign equities totals are $374 million (2014 – $362 million) related to pooled funds.

## e) Derivative contracts

Derivative contracts are financial contracts whose values change as a result of changes in the values of an underlying asset, index, yield curve or foreign exchange rate.

OPB uses derivatives, either directly with counterparties in the OTC market or on regulated exchanges, to facilitate asset allocation, alter the overall risk-return profile of the Plan, and manage or hedge risk. The Plan utilizes the following types of derivative contracts:

### Futures contracts

Futures contracts are standardized agreements which can be purchased or sold on a futures exchange market at a predetermined future date and price, in accordance with terms specified by the regulated futures exchange, and are subject to daily cash margining. These types of derivatives are used to efficiently modify exposures without actually purchasing or selling the underlying asset.

### Forward contracts

Foreign exchange forward contracts are negotiated agreements between two parties to exchange a notional amount of one currency for another at a price specified at origination of the contract, with settlement at a specified future date. Foreign exchange forward contracts are used by the Plan to modify currency exposure for both passive and active hedging.

A bond forward is a contractual obligation to either buy or sell an interest rate-sensitive financial instrument on a predetermined future date at a specified price. Bond forward contracts are used to modify the Plan's exposure to interest rate risk, such as hedging a potential new debenture issue.

**Derivative contracts**

| As at December 31 (in thousands of dollars) | 2015 | | 2014 | |
|---|---|---|---|---|
| | **Notional** | **Fair Value** | Notional | Fair Value |
| **Equity derivatives** | | | | |
| Futures | **$ 624,416** | **$ (6,744)** | $ 793,468 | $ 28,239 |
| **Currency derivatives** | | | | |
| Forwards | **7,473,626** | **(94,934)** | 5,085,078 | (50,911) |
| **Fixed income derivatives** | | | | |
| Bond forwards | **266,617** | **(3,150)** | – | – |
| **Value of derivative contracts** | **$ 8,364,659** | **$ (104,828)** | $ 5,878,546 | $ (22,672) |

All derivative contracts have remaining maturities of less than one year as at December 31, 2015.

## f) Securities lending

At year-end, $1.578 billion (2014 – $1.416 billion) of OPB's securities were on loan to third parties. Pursuant to a securities lending agreement, OPB's custodian arranges the loans and OPB earns a fee. The custodian follows strict lending criteria and over-collateralizes the loans with securities that have credit ratings equal to or better than the securities loaned. OPB does not employ cash collateral in its securities lending program. Securities under lending arrangements continue to be recognized as OPB's investments as OPB retains the rewards and risks associated with these securities. At year-end, $1.664 billion (2014 – $1.496 billion) of securities were held as collateral, providing a 5.5% (2014 – 5.6%) cushion against the potential credit risk associated with these securities lending activities.

## g) Fair values

Canadian accounting standards for pension plans require disclosure of a three-level hierarchy for fair value measurements based on the transparency of inputs to the valuation of an asset or liability as of the financial statement date. The three levels are defined as follows:

**Level 1:** Fair value is based on quoted market prices in active markets for identical assets or liabilities. Level 1 assets and liabilities generally include equity securities traded in an active exchange market.

**Level 2:** Fair value is based on observable inputs other than Level 1 prices, such as quoted market prices for similar (but not identical) assets or liabilities in active markets, quoted market prices for identical assets or liabilities in markets that are not active, and other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Level 2 assets and liabilities include debt securities with quoted prices that are traded less frequently than exchange-traded instruments and derivative contracts whose value is determined using a pricing model with inputs that are observable in the market or can be derived principally from or corroborated by observable market data. This category generally includes mutual and pooled funds; hedge funds; Government of Canada, provincial and other government bonds; Canadian corporate bonds; and certain derivative contracts.

**Level 3:** Fair value is based on non-observable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This category generally includes investments with underlying real estate properties, private equity investments and securities that have liquidity restrictions.

The following tables present the level within the fair value hierarchy for investments and derivatives, excluding pending trades.

## Fair value hierarchy 2015

| As at December 31 (in thousands of dollars) | Level 1 | Level 2 | Level 3 | Total Fair Value |
|---|---|---|---|---|
| **Financial assets** | | | | |
| Cash and short-term investments | | | | |
| Canada | $ 46,569 | $ 443,015 | $ – | $ 489,584 |
| Foreign | 162,247 | 17,321 | – | 179,568 |
| Bonds and private debt | | | | |
| Canada | – | 5,954,125 | 363,294 | 6,317,419 |
| Foreign | – | 593,523 | 27,072 | 620,595 |
| Equities | | | | |
| Canada | 1,813,019 | – | – | 1,813,019 |
| Foreign | 7,380,483 | 373,501 | – | 7,753,984 |
| Real estate | – | – | 4,247,082 | 4,247,082 |
| Private equity | – | – | 562,587 | 562,587 |
| Infrastructure | – | – | 1,167,558 | 1,167,558 |
| Forward contracts | – | 74,577 | – | 74,577 |
| | $ 9,402,318 | $ 7,456,062 | $ 6,367,593 | $ 23,225,973 |
| **Financial liabilities** | | | | |
| Futures | $ (6,744) | $ – | $ – | $ (6,744) |
| Forward contracts | – | (172,661) | – | (172,661) |
| | $ (6,744) | $ (172,661) | $ – | $ (179,405) |

## Fair value hierarchy 2014

| As at December 31 (in thousands of dollars) | Level 1 | Level 2 | Level 3 | Total Fair Value |
|---|---|---|---|---|
| Financial assets | | | | |
| Cash and short-term investments | | | | |
| Canada | $ 75,655 | $ 669,122 | $ – | $ 744,777 |
| Foreign | 133,994 | 44,854 | – | 178,848 |
| Bonds and private debt | | | | |
| Canada | – | 5,115,812 | 411,819 | 5,527,631 |
| Foreign | 144 | 753,478 | 24,995 | 778,617 |
| Equities | | | | |
| Canada | 2,117,745 | – | – | 2,117,745 |
| Foreign | 8,003,790 | 361,969 | – | 8,365,759 |
| Futures | 28,239 | – | – | 28,239 |
| Real estate | – | – | 3,425,640 | 3,425,640 |
| Private equity | – | – | 359,765 | 359,765 |
| Infrastructure | – | – | 754,609 | 754,609 |
| Forward exchange contracts | – | 19,802 | – | 19,802 |
| | $ 10,359,567 | $ 6,965,037 | $ 4,976,828 | $ 22,301,432 |
| **Financial liabilities** | | | | |
| Forward exchange contracts | $ – | $ (70,713) | $ – | $ (70,713) |

There were no significant transfers between Levels 1, 2, or 3 during the years ended December 31, 2015 and 2014.

The following tables present a reconciliation of all Level 3 assets and liabilities measured at fair value for the years ended December 31, 2015 and 2014.

**Level 3 reconciliation 2015**

| (in thousands of dollars) | Fair Value as at January 1, 2015 | Transfers In/(Out) | Acquisitions | Dispositions | Issuance of Debt | Fair Value Changes | Fair Value as at December 31, 2015 |
|---|---|---|---|---|---|---|---|
| **Financial assets** | | | | | | | |
| Private debt | | | | | | | |
| Canada | $ 411,819 | $ – | $ 31,741 | $ (72,122) | $ – | $ (8,144) | $ 363,294 |
| Foreign | 24,995 | – | 12,083 | (14,281) | – | 4,275 | 27,072 |
| Real estate | 3,425,640 | – | 1,291,555 | (129,492) | (500,000) | 159,379 | 4,247,082 |
| Private equity | 359,765 | – | 150,411 | (38,509) | – | 90,920 | 562,587 |
| Infrastructure | 754,609 | – | 406,727 | (94,207) | – | 100,429 | 1,167,558 |
| | $ 4,976,828 | $ – | $ 1,892,517 | $ (348,611) | $ 500,000) | $ 346,859 | $ 6,367,593 |

**Level 3 reconciliation 2014**

| (in thousands of dollars) | Fair Value as at January 1, 2014 | Transfers In/(Out) | Acquisitions | Dispositions | Issuance of Debt | Fair Value Changes | Fair Value as at December 31, 2014 |
|---|---|---|---|---|---|---|---|
| **Financial assets** | | | | | | | |
| Private debt | | | | | | | |
| Canada | $ 433,106 | $ – | $ 32,234 | $ (44,766) | $ – | $ (8,755) | $ 411,819 |
| Foreign | 11,264 | – | 19,195 | (6,059) | – | 595 | 24,995 |
| Real estate | 2,927,351 | – | 553,229 | (54,918) | – | (22) | 3,425,640 |
| Private equity | 108,272 | – | 261,128 | (16,886) | – | 7,251 | 359,765 |
| Infrastructure | 527,112 | – | 205,124 | (10,980) | – | 33,353 | 754,609 |
| | $ 4,007,105 | $ – | $ 1,070,910 | $ (133,609) | $ – | $ 32,422 | $ 4,976,828 |

## h) Commitments and guarantees

As at December 31, 2015, OPB has provided funding commitments for certain investments in the amount of $3,436 million (2014 – $1,671 million), of which $1,591 million (2014 – $772 million) has been advanced to date.

OPB has provided a guarantee for the payment of principal and interest on $1,250 million in debentures which were issued by OPB Finance Trust, a trust established for the benefit of OPB and its related entities. Four series of debentures have been issued as at December 31, 2015:

1. $350 million, Series A, 30-year debentures due 2042, with interest payable semi-annually at 3.89%.
2. $150 million, Series B, 50-year debentures due 2062, with interest payable semi-annually at 3.87%.
3. $250 million, Series C, 10-year debentures due 2023, with interest payable semi-annually at 2.90%.
4. $500 million, Series D, 7-year debentures due 2022, with interest payable semi-annually at 1.88%.

The proceeds from the issuance of the 30-year and 50-year debentures were loaned to two OPB real estate subsidiaries. In turn, these real estate companies repaid amounts owed to OPB.

The proceeds from the issuance of the 10-year debentures were loaned to a real estate trust established for the benefit of OPB.

On February 24, 2015, OPB Finance Trust issued $250 million of Series D debentures at an effective yield of 1.885% and subsequently on November 17, 2015, the Series D debentures were reopened to raise an additional $250 million at an effective yield of 2.300%. The proceeds from the issuance of the 7-year debentures were loaned to three real estate subsidiaries and a real estate trust.

Subsequent to year-end, on February 2, 2016, OPB Finance Trust issued $250 million of Series E debentures at an effective yield of 2.956%. The debentures are due on February 2, 2026 with an interest rate of 2.95% per annum, calculated and payable semi-annually. The repayment of principal and interest for the Series E debentures is fully guaranteed by OPB.

OPB's real estate investments are shown net of the OPB Finance Trust debentures and any other financings specifically assumed by these real estate entities.

In addition to the guarantee on the debentures, $19 million of letters of credit are guaranteed by OPB as at December 31, 2015.

## i) Investment in real estate

The Real Estate portfolio is comprised of direct holdings of real estate properties, partial ownerships of real estate investments held through funds or similar investment vehicles and participating mortgages. Those investments are recorded at their fair values determined in accordance with OPB's valuation policy.

The following table provides a breakdown of the Real Estate portfolio by its major components.

**Investment in real estate**

| As at December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| **Assets** | | |
| Real estate properties | **$ 2,274,625** | $ 2,399,106 |
| Investments[1] | **3,276,149** | 1,820,043 |
| Total assets | **5,550,774** | 4,219,149 |
| **Liabilities** | | |
| Debentures[2] | **1,289,521** | 783,891 |
| Other liabilities, net | **14,171** | 9,618 |
| Total liabilities | **1,303,692** | 793,509 |
| Net investment in real estate | **$ 4,247,082** | $ 3,425,640 |

[1] Investments held through non-controlling co-ownerships, funds, or similar investment vehicles consist of real estate properties, any related assets and liabilities and participating mortgages. These assets and liabilities are presented on a net basis.

[2] The debentures represent securities issued by OPB Finance Trust and are guaranteed by OPB (see Note 4(h)).

## **Note 5** Capital assets

| As at December 31, 2015 (in thousands of dollars) | Cost | Accumulated Depreciation | Net Book Value |
|---|---|---|---|
| Computer equipment | **$ 4,624** | **$ 3,995** | **$ 629** |
| Furniture and fixtures | **2,483** | **1,808** | **675** |
| Leasehold improvements | **1,641** | **983** | **658** |
| Total capital assets | **$ 8,748** | **$ 6,786** | **$ 1,962** |

| As at December 31, 2014 (in thousands of dollars) | Cost | Accumulated Depreciation | Net Book Value |
|---|---|---|---|
| Computer equipment | $ 4,262 | $ 3,613 | $ 649 |
| Furniture and fixtures | 2,478 | 1,577 | 901 |
| Leasehold improvements | 1,607 | 826 | 781 |
| Total capital assets | $ 8,347 | $ 6,016 | $ 2,331 |

## **Note 6** Pension obligations

### a) Accounting basis

The value of pension obligations of $23.5 billion (2014 – $22.6 billion) is an estimate of pension benefit obligations accrued to date for members and retired members. The accounting valuation is determined by applying best estimate assumptions and the projected benefit cost method (pro-rated on service), as required under Canadian accounting standards for pension plans. Under this method, the accrued pension benefits are based on service earned up to the reporting date. The accrued pension benefits as at December 31, 2015 were computed by extrapolating data used for the December 31, 2014 funding valuation prepared by the independent actuary for management purposes.

**Actuarial assumptions** – The actuarial assumptions used in determining the value of accrued pension benefits reflect management's best estimate of future economic and non-economic events. The primary economic assumptions, as at December 31, are:

| **Economic Assumptions** | **2015** | 2014 |
|---|---|---|
| Investment return | **5.95%** | 5.95% |
| Inflation | **2.10%** | 2.10% |
| Real rate of return | **3.85%** | 3.85% |
| Salary increases | | |
| 2015 | **1.5% + promotional scale** | 1.0% + promotional scale |
| 2016 | **1.5% + promotional scale** | 1.5% + promotional scale |
| 2017 | **1.5% + promotional scale** | 1.5% + promotional scale |
| 2018 | **2.0% + promotional scale** | 2.0% + promotional scale |
| 2019 | **2.5% + promotional scale** | 2.5% + promotional scale |
| 2020 and thereafter | **3.1% + promotional scale** | 3.1% + promotional scale |

The non-economic assumptions include mortality, withdrawal and retirement rates. During 2015, the changes in actuarial assumptions resulted in a decrease of $54 million (2014 – a decrease of $272 million) to the Plan's pension obligations. A survivorship adjustment for spouses, offset by the strengthening of the mortality assumption as a result of Plan experience, was the main contributor to the decrease in obligations in 2015.

## b) Funding basis

The funding valuation of the PSPP is based on methods required under the *PSPAct* and the *Pension Benefits Act* (Ontario) ("*PBA*"). The *PBA* and the *Income Tax Act* (Canada) require that an actuarial funding valuation of the PSPP be completed and filed with the regulatory authorities at least every three years. The most recent filing was a funding valuation as at December 31, 2013, prepared by Aon Hewitt, which disclosed a funding shortfall of $804 million on a going-concern basis. The effective date of the next funding valuation that is required to be filed will be as at December 31, 2016. A funding valuation was prepared for management purposes as at December 31, 2014 by Aon Hewitt, which disclosed a funding shortfall of $430 million on a going-concern basis.

The funding valuation is used as a basis for funding and Plan design decisions. Differences between the accounting and funding valuation results may arise due to such factors as variances between estimated and actual data, economic and demographic assumptions or conditions, actuarial methodology, and subsequent events.

## **Note 7** Deficit

In these financial statements, the amount by which net assets available for benefits is less than the pension obligations is represented by the deficit, which as at December 31, 2015 was $434 million (2014 – $332 million).

## **Note 8** Net investment income

| For the year ended December 31 (in thousands of dollars) | **Investment Income[1]** | **Fair Value Changes** | **2015 Total** | Investment Income[1] | Fair Value Changes | 2014 Total |
|---|---|---|---|---|---|---|
| **Cash and short-term investments** | | | | | | |
| Canada | **$ 9,520** | **$ 16,365** | **$ 25,885** | $ 13,603 | $ 16,487 | $ 30,090 |
| Foreign[2] | **1,788** | **(615,953)** | **(614,165)** | 1,735 | (163,538) | (161,803) |
| | **11,308** | **(599,588)** | **(588,280)** | 15,338 | (147,051) | (131,713) |
| **Fixed income** | | | | | | |
| Special Province of Ontario Debentures[3] | **–** | **–** | **–** | 14,208 | (12,490) | 1,718 |
| **Bonds and private debt** | | | | | | |
| Canada | **242,205** | **(5,720)** | **236,485** | 235,655 | 257,127 | 492,782 |
| Foreign | **45,739** | **35,309** | **81,048** | 53,187 | 14,378 | 67,565 |
| | **287,944** | **29,589** | **317,533** | 303,050 | 259,015 | 562,065 |
| **Equities** | | | | | | |
| Canada | **59,804** | **(273,612)** | **(213,808)** | 52,105 | 93,010 | 145,115 |
| Foreign | **221,159** | **944,398** | **1,165,557** | 195,262 | 724,694 | 919,956 |
| | **280,963** | **670,786** | **951,749** | 247,367 | 817,704 | 1,065,071 |
| **Real estate** | **196,493** | **147,291** | **343,784** | 141,650 | (22) | 141,628 |
| **Infrastructure** | **41,908** | **99,303** | **141,211** | 18,215 | 33,353 | 51,568 |
| **Private equity** | **46,865** | **90,532** | **137,397** | 21,276 | 7,251 | 28,527 |
| **Total investment income** | **$ 865,481** | **$ 437,913** | **$1,303,394** | $ 746,896 | $ 970,250 | $1,717,146 |
| Investment management and related fees (Note 8(c)) | | | **(79,413)** | | | (75,242) |
| **Net investment income** | | | **$ 1,223,981** | | | $1,641,904 |

[1] Investment income includes interest on cash and short-term investments, fixed income and participating mortgages, dividend income on equities, real estate dividend income and distribution income from various pooled funds.

[2] Fair value changes on cash and short-term investments include gains (losses) on foreign exchange contracts.

[3] Special Province of Ontario Debentures matured in 2014.

## a) Interest income

| For the year ended December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| **Cash and short-term investments** | | |
| Canada | | |
| Cash | **$ 5,059** | $ 6,541 |
| Short-term notes and treasury funds | **4,394** | 6,984 |
| Term deposits | **67** | 78 |
| | **$ 9,520** | $ 13,603 |
| Foreign | | |
| Cash | **$ 1,784** | $ 499 |
| Short-term notes and treasury funds | **4** | 1,236 |
| | **$ 1,788** | $ 1,735 |

Earnings from pooled short-term investment funds are included with short-term notes and treasury funds.

## b) Dividend income

Dividend income includes $46.4 million (2014 – $18.5 million) from pooled equity funds.

## c) Investment management and related fees

| For the year ended December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| Portfolio fund management | **$ 63,104** | $ 58,239 |
| Transaction costs | **9,659** | 10,641 |
| Custodial | **5,607** | 4,768 |
| Private market | **1,043** | 1,594 |
| | **$ 79,413** | $ 75,242 |

Transaction costs include commissions and fees on trades.

## **Note 9** Contributions

| For the year ended December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| **Members** | | |
| Current service required | **$ 289,515** | $ 282,837 |
| Prior service | **28,800** | 27,501 |
| **Total contributions from members** | **318,315** | 310,338 |
| **Employers** | | |
| Current service | | |
| Regular contributions | **289,043** | 283,063 |
| PSSBA transfer | **(12,637)** | (10,253) |
| For members receiving Long Term Income Protection benefits | **11,485** | 11,089 |
| Prior service | **4,557** | 4,337 |
| | **292,448** | 288,236 |
| **Sponsor payments** | | |
| Special payments | **98,989** | 98,989 |
| Additional current service | **21,852** | 21,528 |
| | **120,841** | 120,517 |
| **Total contributions from employers and sponsor** | **413,289** | 408,753 |
| **Total contributions** | **$ 731,604** | $ 719,091 |

The contribution requirements are set out in the *PSPAct* and summarized in Note 2(b).

Members who are receiving benefits on Long Term Income Protection have their contributions to the PSPP paid by their employers.

The Province, as sponsor of the Plan, contributed $99 million (2014 – $99 million) in Special Payments in 2015 towards the funding shortfall identified in the filed funding valuation as at December 31, 2013. In 2015, the Province made $22 million (2014 – $22 million) in additional employer current service contributions.

For 2015 and 2014, the contributions to the Plan were made in accordance with the funding requirements as specified by the most recently filed actuarial funding valuation.

There were no required contributions past due as at December 31, 2015 and 2014.

## **Note 10** Operating expenses

### Pension operations

| For the year ended December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| Staffing costs | **$ 12,916** | $ 13,097 |
| Staff development and support | **99** | 193 |
| Office premises and operations | **2,894** | 3,120 |
| Information technology and project management | **6,486** | 5,174 |
| Professional services | **868** | 932 |
| Communication | **288** | 309 |
| Depreciation | **457** | 515 |
| Board remuneration | **57** | 68 |
| Audit | **244** | 230 |
| | **$ 24,309** | $ 23,638 |

### Investment operations

| For the year ended December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| Staffing costs | **$ 13,409** | $ 11,555 |
| Staff development and support | **179** | 171 |
| Office premises and operations | **2,656** | 2,238 |
| Information technology and project management | **3,231** | 2,651 |
| Professional services | **2,319** | 2,222 |
| Communication | **124** | 133 |
| Depreciation | **315** | 302 |
| Board remuneration | **86** | 102 |
| Audit | **244** | 230 |
| | **$ 22,563** | $ 19,604 |

Included in the above operating expenses are:

### External audit services

| For the year ended December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| External audit and related services provided to Ontario Pension Board | **$ 256** | $ 253 |
| External audit and related services provided to and recorded by subsidiary operations | **311** | 241 |
| **Total fees** | **$ 567** | $ 494 |

### Actuarial services

| For the year ended December 31 (in thousands of dollars) | 2015 | 2014 |
|---|---|---|
| Actuarial services provided to Ontario Pension Board | **$ 410** | $ 539 |

## **Note 11** Capital management

The funding surpluses or deficits determined periodically through the funding valuations prepared by an independent actuary are defined as the Plan's capital. The actuary's funding valuation is used to measure the long-term health of the Plan. The last filed actuarial valuation report for funding purposes was prepared by Aon Hewitt as of December 31, 2013, which disclosed a funding shortfall of $804 million on a going-concern basis and a deficit of $871 million on a solvency basis. The effective date of the next required actuarial valuation for funding purposes is December 31, 2016.

The objective of managing the Plan's capital is to ensure the Plan is funded to fully pay out the Plan's benefits. The funding valuation determines the annual minimum contribution levels to eliminate any shortfalls. The Plan's SIP&P also provides guidance with respect to the investment of the Plan's assets (see Note 4(a)) in order to assist with the management of any funding excesses or shortfalls. The SIP&P was last amended in November 2015, resulting in the asset mix targets as shown in Note 4(a). The Plan's rate of return expectation has been set in the SIP&P at a 3.85% real rate of return, net of fees.

## **Note 12** Comparative financial statements

The comparative financial statements have been reclassified from statements previously presented to conform to the presentation of the 2015 financial statements.

# Supplementary Information

## Fixed income maturities

| As at December 31 (in thousands of dollars) | 2015 | | 2014 | |
|---|---|---|---|---|
| | Fair Value | Current Yield % | Fair Value | Current Yield % |
| **Bonds** | | | | |
| Canada | | | | |
| 0–1 year | $ 532,406 | 0.98–12.01 | $ 483,372 | 0.14–13.11 |
| ≥ 1–5 years | 1,646,854 | 0.25–14.19 | 1,437,397 | 1.00–17.83 |
| ≥ 5–10 years | 1,330,725 | 0.75–11.16 | 1,382,513 | 1.49–12.71 |
| ≥ 10 years | 2,622,330 | 1.07–11.37 | 2,064,021 | 2.18–10.38 |
| | 6,132,315 | | 5,367,303 | |
| Foreign | | | | |
| 0–1 year | 29,930 | 3.16–7.00 | 14,118 | 3.21–12.90 |
| ≥ 1–5 years | 172,524 | 2.48–38.10 | 237,780 | 1.05–15.76 |
| ≥ 5–10 years | 307,277 | 2.04–21.61 | 429,658 | 1.11–20.28 |
| ≥ 10 years | 83,791 | 1.43–10.12 | 83,458 | 1.14–9.54 |
| | 593,522 | | 765,014 | |
| **Fixed income funds** | 212,177 | | 173,931 | |
| **Total fixed income** | $ 6,938,014 | | $ 6,306,248 | |

## Investments over $200 million

| As at December 31, 2015 (in thousands of dollars) | Maturities | Coupon % | Fair Value[1] |
|---|---|---|---|
| **Fixed income** | | | |
| OPB Investment Inc. (holding company, 100% owned) | – | – | $ 215,844 |
| **Bonds** | – | – | |
| Canada | – | – | |
| Government of Canada | 2017–2064 | 0.25–10.50 | $ 877,424 |
| Province of Ontario | 2017–2062 | 1.62–9.50 | 835,386 |
| Canada Housing Trust No.1 | 2016–2025 | 0.79–4.10 | 533,546 |
| Province of Quebec | 2017–2055 | 0.00–9.63 | 335,606 |
| **Real estate, net of financing** | | | |
| Investment in real estate holdings, comprising OPB Realty Inc. (holding company, 100% owned), OPB (EMTC) Inc. (holding company, 100% owned), OPB (Southgate) Inc. (holding company, 100% owned), OPB (155 Wellington) Inc. (holding company, 100% owned), OPB Finance Trust (financing entity, 100% beneficial interest), OPB Real Estate Investments 2 Ltd. (holding company, 100% owned), OPB (Centre 10) Inc. (holding company, 100% owned) and OPB (TDC) Inc. (holding company, 100% owned). | – | | $ 3,091,271 |

### Infrastructure and equities

| As at December 31, 2015 (in thousands of dollars) | Shares/Units[2] | Fair Value[2] |
|---|---|---|
| **Infrastructure** | | |
| OPB Infrastructure 2 Ltd. (holding company, 100% owned) | – | $ 662,590 |
| **Private equities** | | |
| OPB Private Equity 5 Ltd. (holding company, 100% owned) | – | $ 255,817 |
| **Equities** | | |
| Other International | | |
| Leith Wheeler International Fund | 22,664 | $ 373,501 |

[1] Includes guaranteed instruments issued by subsidiaries/agencies.

[2] Includes all share classes and American Depositary Receipts.

## Real estate properties – Location and gross leasable area

| As at December 31, 2015 (in thousands of square feet) | Location | Gross Leasable Area |
|---|---|---|
| **Retail** | | |
| Pen Centre | St. Catharines | 1,048 |
| Southgate Centre | Edmonton | 942 |
| St. Vital Centre | Winnipeg | 931 |
| Pickering Town Centre | Pickering | 922 |
| Erin Mills Town Centre | Mississauga | 868 |
| Erin Mills Town Plaza | Mississauga | 59 |
| Woodgrove Centre | Nanaimo | 748 |
| Midtown Plaza | Saskatoon | 734 |
| Cornwall Centre | Regina | 569 |
| Halifax Shopping Centre | Halifax | 526 |
| Halifax Shopping Centre Annex | Halifax | 420 |
| West End Mall | Halifax | 183 |
| Carlingwood Shopping Centre | Ottawa | 521 |
| | | 8,471 |
| **Office** | | |
| TD Centre | Toronto | 4,494 |
| RBC Centre | Toronto | 1,211 |
| Centre 10 | Calgary | 370 |
| Pickering Office Tower | Pickering | 127 |
| Halifax Office Complex | Halifax | 80 |
| | | 6,282 |
| **Residential** | | |
| Engelhart Apartments | Toronto | 85 |
| **Total properties** | | **14,838** |

* Area shown above reflects 100% of each property's square footage. Southgate Centre and RBC Centre are 50% owned by Ontario Pension Board through its subsidiaries OPB (Southgate) Inc. and OPB (155 Wellington) Inc. Woodgrove Centre, Midtown Plaza, Cornwall Centre and Engelhart Apartments are 50% owned by Ontario Pension Board through its subsidiary OPB Real Estate Investments 2 Limited. TD Centre is 30% owned by Ontario Pension Board through its subsidiary OPB (TDC) Inc.

# Governance

You can't build a great house without a solid foundation. We wouldn't be able to invest successfully, offer world-class client service, adapt to changing conditions or continuously drive innovation without our strong governance structure.

## How OPB is Run

A strong governance structure forms the foundation of OPB's continued success. OPB's governance structure meets – and in many cases exceeds – industry standards and best practices. Our steadfast commitment to industry-leading governance practices ensures full accountability, effective decision making, prudent investment management, fiscal responsibility, legal compliance and smart risk-taking. In short, it ensures that we are – at all times – protecting and promoting the best interests of the Plan and its beneficiaries.

Underpinning our governance framework is a series of documents that define our organizational structure, responsibilities and governance practices. Collectively referred to as the *Governance Documents*, these documents include a *Statement of Governance Principles*, a *General By-law*, *Statements of Mandate and Authority*, and a *Code of Conduct*.

Our *Governance Documents* clearly define roles and responsibilities, draw a clear link between responsibility and accountability, set expectations for ethical behaviour and entrench conflict-of-interest guidelines. They also establish a well-defined system of checks and balances on all power and authority.

### Role of the Board

OPB's Board of Directors holds the ultimate responsibility for the Plan's stewardship. That said, the Board has delegated responsibility for the day-to-day operations of the Plan – including administration and asset management – to OPB's management team. It has also chosen to delegate specific responsibilities to five committees of the Board: the Governance and Risk Committee, Investment Committee, Audit Committee, Pension Committee and Human Resources Committee.

The Board retains overall responsibility for supervision of OPB's business affairs. For example, it:

- approves OPB's strategic plan, business plan and budget;
- ensures that management has identified and is managing risks;
- conducts performance and compensation reviews for the President & CEO;
- approves the Strategic Asset Allocation, which drives investment management asset mix decisions;
- supervises and approves all audit matters;
- ensures that management is maintaining a culture of integrity;

- conducts an annual review of OPB's *Statement of Investment Policies & Procedures*;
- approves any recommendations made to the Plan Sponsor regarding Plan amendments; and
- monitors compliance with OPB's governance documents.

In fulfilling their duties, members of the Board are directly accountable to:

- the Plan's beneficiaries (i.e., active and retired members);
- the Financial Services Commission of Ontario (the organization that oversees registered pension plans in Ontario); and
- the Government of Ontario (the Plan Sponsor).

## Continuous improvement

Good governance is an ongoing process. To ensure we stay at the forefront of industry best practices for governance, we must remain committed to continuous improvement. That's why in 2015 we:

- adopted a new model for delegating authority within OPB to streamline the approvals process and contain costs while also strengthening our system of internal checks and balances;
- revamped our Enterprise Risk Management (ERM) program to give the Board of Directors and management team more accurate data and more actionable mitigation strategies;
- developed, and are currently implementing, a series of risk appetite statements and a risk scale, to specify and more objectively measure acceptable levels of risk for specific business priorities.

Our ERM program remains a key component of our good governance framework. This program provides an integrated, organization-wide approach to managing risk and setting our organizational strategy. Specifically, it prescribes a formal framework for identifying, reporting and monitoring any risk that could adversely affect the Plan. It also helps identify mitigation strategies.

OPB has also embraced the governance-risk-compliance (GRC) model. In short, this model looks to ensure the integration of governance, compliance and risk management functions across the organization and improve organizational effectiveness.

OPB is consistently recognized as an example of good governance within Ontario's public service. The Board is committed to maintaining a best-in-class governance model, and ensuring OPB can continue to drive innovation and build a strong future for all PSPP stakeholders.

# Board of Directors

Members of OPB's Board of Directors are appointed based on their expertise, commitment, integrity and vision. Working together, they ensure the Plan's governance structure and practices reflect the highest standards.

**M. Vincenza Sera, ICD.D (Chair)**

Vincenza is a former investment banker with 25 years of expertise in capital markets, corporate finance, investment management and corporate governance. She has held senior positions with major Canadian firms, including National Bank Financial, Gordon Capital and CIBC. Vincenza is a member of the Institute of Corporate Directors.

Appointed to the Board on September 17, 2004.
Appointed as Chair on July 1, 2007.
Current appointment ends June 30, 2016.

**Patti Croft, ICD.D (Vice-Chair)**

Patti has over 30 years of experience as an economist, with extensive institutional investment management experience, focusing on asset allocation strategies. She has held a number of high-profile positions, including Vice-President and Chief Economist for Phillips, Hager & North Investment Management, Chief Economist for RBC Global Asset Management, and Vice-President and Chief Economist for Sceptre Investment Counsel. Patti is a member of the Institute of Corporate Directors.

Appointed to the Board on May 1, 2013.
Appointed as Vice-Chair on December 3, 2014.
Current appointment ends April 30, 2016.

**Kevin Costante**

Kevin is an Adjunct Professor and Stauffer-Dunning Visitor at the School of Policy Studies with Queen's University. He is a former Deputy Minister of Government Services, Associate Secretary of the Cabinet and Secretary of the Management Board. His community involvement includes serving as a member of the Youthdale Treatment Centre and as a member of the PRESTO sub-committee with Metrolinx.

Appointed to the Board on December 2, 2015.
Current appointment ends December 1, 2018.

**Sean Hanley**

Sean is Counsel with the Constitutional Law Branch, Ministry of the Attorney General. As past President of the Association of Law Officers of the Crown, he established a successful track record of advocacy on behalf of public sector lawyers in collective bargaining, pension sustainability, defending professional employees' rights and independence in the workplace, and promoting continuing professional development for public sector lawyers. He was also the founder of the National Pension Strategy Committee of the Canadian Association of Crown Counsel, which co-ordinates education and advocacy with respect to public sector pension developments affecting Crown counsel in all Canadian jurisdictions.

Appointed to the Board on December 3, 2014.
Current appointment ends December 2, 2017.

**Lisa Hillstrom**

As Executive Officer, Pension and Benefits, for the OPP Association, Lisa provides bereavement counselling, retirement counselling and assistance to members with insured benefit appeals, LTIP and WSIB issues. During her career, she has held several positions in the pension and benefits field with the Ontario Public Service (OPS). Immediately prior to joining the OPP Association, she held the position of Benefit Advisor, Ontario Shared Services.

Appointed to the Board on March 26, 2015.
Current appointment ends August 14, 2016.

**Hugh G. Mackenzie, ICD.D**

Hugh is Principal in his own economic consulting business and a Research Associate of the Canadian Centre for Policy Alternatives. He has worked for over 40 years in the trade union and non-profit sectors, as well as in all three levels of government. He is past Chair of the Atkinson Charitable Foundation and was a member of the Ontario Teachers' Pension Plan Board from 2007 to 2014. Hugh is a member of the Institute of Corporate Directors.

Appointed to the Board on December 4, 2002.
Current appointment ends September 30, 2017.

**Geri Markvoort**

Geri is a retired senior human resources executive, with more than 40 years' experience in large complex organizations. She has aligned the delivery of human resources with the needs of business in various industries (e.g., Shell Canada, Quality Safety Systems, Jannock, CIBC, KPMG and KPMG Global). Significant organizational change, global service models, total rewards delivery, effective client relationships and the evolution of the HR function have challenged and engaged her throughout her career. A passionate champion for change and strong HR leadership, Geri's board experience has included governance roles as Chair of the Board of Governors, George Brown College; Chair of the Board, Dress for Success Toronto; and board member of Lawn Summer Nights and the Cystic Fibrosis, Toronto Chapter.

Appointed to the Board on January 5, 2015.
Current appointment ends January 4, 2018.

**Michelle Savoy, ICD.D**

Michelle is a corporate director with over 25 years' experience in the financial services industry, including investment management and capital markets. She currently serves as a Director for the Laurentian Bank of Canada (LB-T), Pizza Pizza Royalty Corp. (PZA-T) and Nav Canada, and held numerous senior executive positions with The Capital Group of Companies, a global investment management organization, including President of Capital Guardian Canada, until her retirement in 2011. Michelle is a member of the Institute of Corporate Directors.

Appointed to the Board on January 15, 2016.
Current appointment ends January 14, 2019.

## Former Members of the Board

**M. David Brown**
Appointment from October 2006 to October 2015.

**M.E. (Peggy) Gilmour**
Appointment from August 2009 to August 2015.

**Shamira Madhany**
Appointment from December 2010 to February 2015.

# Directory of Key Personnel

## Officers

**Mark J. Fuller**
President & CEO

**Jill Pepall**
Executive Vice-President & Chief Investment Officer

**Peter Shena**
Executive Vice-President & Chief Pension Officer

**Valerie Adamo**
Chief Technology Officer

**R. Paul Edmonds**
Chief Legal & Governance Officer

**Gayle Fisher**
Chief Administrative Officer

**Michel J. Paradis**
Chief Financial Officer

**Glenn Hubert**
Managing Director, Private Debt

**Tanya Lai**
Managing Director, Public Markets

**Sean Macaulay**
Managing Director, Private Markets

**Brian Whibbs**
Managing Director, Real Estate

**Mila Babic**
Vice-President, Client Services

**Kevin Clinton**
Vice-President, Investment Counsel

**John McNair**
Vice-President, Investment Risk Management & Analytics

# Glossary

**Absolute returns:** Refers to the total gain or loss from a portfolio or an asset over a defined period of time. It can be expressed in dollar or percentage terms. An absolute return is often simply referred to as a portfolio's return.

**Asset mix:** The categorization of assets within the pension plan portfolio (e.g., cash, Canadian equities, real estate, etc.). Each category is measured as a percentage of the total pension plan portfolio's fair value.

**Assumptions:** Estimates of what certain variables – such as interest rates, investment returns and mortality rates – will be in the future. Assumptions are used to estimate the future cost of pensions and the future value of pension assets.

**Benchmark:** A point of reference that is used to compare portfolio performance and risk. The S&P/TSX Composite Index and the FTSE/TMX Universe Bond Index are two benchmarks commonly used to compare Canadian equity portfolio and fixed income portfolio performance and risk, respectively. OPB's Strategic Asset Allocation (SAA) is a benchmark against which the overall Plan is assessed from a risk and return perspective.

**Bond offerings/financings:** Bond offerings or bond financings give OPB an opportunity to enhance investment returns and provide a partial hedge against future rises in interest rates. They provide OPB with access to low-cost financing that is reinvested in high-quality real estate that generates a cash flow greater than the amount needed to cover the interest payments on the bond. In short, they enable OPB to enhance returns in a cost-effective manner.

**Capital preservation:** Prevents capital losses during down market conditions. A capital preservation investment approach generally implies a lower-level risk profile for the investment portfolio; this may result in relative underperformance during periods of rising markets.

**Co-ownership:** An ownership structure whereby the investors (co-owners) directly own undivided interests in and control a private markets asset. The rights and obligations of the co-owners and management of the asset are governed by a co-owners agreement.

**Emerging markets:** Countries (such as Brazil, China and India) experiencing higher economic and industrialized growth than developed countries (such as the U.S., Canada and the U.K.). Emerging markets often present higher investment risks due to geopolitical instabilities, currency fluctuations, and financial regulations still in infancy; on the other hand, emerging markets offer investors expected higher returns because of greater growth prospects.

**Funded status:** A measure of the amount of assets the pension plan currently holds to pay out its future pension benefits (present value of projected future pension benefits). The funded status is regarded as the "health check" of a pension plan, and is determined by undertaking a funding valuation of the pension plan.

**Investment risk:** The uncertainty of asset returns associated with investing activities (i.e., asset returns are lower than what is expected).

**Private equity:** Equity capital of non-public companies. Private equity is less liquid and is considered more of a long-term investment.

**Private markets:** The market for assets that are not sold or listed on a public exchange, such as a stock exchange. Assets bought and sold in the private market include things like real estate, private equity, infrastructure and mortgages.

**Proxy voting:** Stockholders have the right to vote on certain issues related to the organization's management, including composition of the Board and compensation of senior management, etc. Many shareholders do not attend annual or special meetings held by publicly traded companies to decide on these key operational issues. Instead, shareholders can allow someone else to cast a proxy vote on their behalf. Institutional investors often base their proxy voting decisions against a set of pre-determined criteria, such as environmental, social and governance factors.

**Public markets:** The market for assets that are bought and sold on public exchanges, such as stock exchanges.

**Relative returns:** The return that an asset achieves over a period of time compared to a benchmark. The relative return is the difference between the absolute return achieved by the asset and the return achieved by the benchmark. For example, an asset that achieves an absolute return of 12% will have a relative return of 2% when compared to a benchmark return of 10%.

**Risk assets:** Any asset that carries a degree of risk higher than Government of Canada bonds. Risk assets are those that generally have a high degree of price volatility, such as equities, commodities, and all fixed-income assets aside from high-quality government bonds.

**Risk-adjusted returns:** A measurement used to analyze an investment's return based on how much risk is involved in producing that return. Risk-adjusted returns can be used to compare the return of a portfolio against a benchmark with a known return and risk profile.

**Strategic Asset Allocation (SAA):** A long-term strategy that involves setting target allocations of asset mix with the purpose of achieving highest returns on investment to meet current and projected future pension benefits given the Plan's risk tolerance and investment horizon.

**Surplus at Risk:** Measures the risk of a decrease in the Funded Ratio (i.e., Plan assets divided by Plan liabilities) over a defined period of time. OPB generally measures this at a 5% probability level (i.e., expected to occur once in a 20-year period). For example, a 10% Surplus at Risk suggests that the Funded Ratio could decrease by -10% once in the next 20 years.

**Tactical Asset Allocation (TAA):** An asset mix strategy that uses fundamental and quantitative factors in a systemic approach to increase or decrease OPB's risk exposure at various points in the market cycles to take advantage of investment opportunities.

# Ontario Pension Board
# 2015 Annual Report

OPB
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